

Clark County Comprehensive Capital Facilities Plan

Summary Report

Prepared for Clark County Comprehensive Plan
June 2004

Prepared by
Long Range Planning Division
Clark County Community Development

Table of Contents

Introduction.....	4
Definitions.....	5
Capital Facilities	5
Required Components of a CFP	5
Transportation Element Requirements	6
Water.....	8
Summary	8
Clark County Water System Planning	8
Water Service Areas	9
Water Resource.....	9
Source Documents	10
Analysis.....	10
Sewer.....	21
Summary	21
Sewer Service Areas	21
Source Documents	22
Analysis.....	22
Significant Issues	26
Storm Water.....	29
Summary	29
Background	29
Storm Water Service Areas.....	30
Source Documents	30
Analysis.....	30
Other Issues.....	34
Schools.....	36
Summary	36
School District Service Areas	37
Source Documents	37
Analysis.....	38
Parks/Recreational Facilities.....	44
Parks and Recreational Facility Service Areas	44
Source Documents	44
Provision of Parks in the Unincorporated Urban Area	45
Analysis.....	45
Police.....	50
Summary	50
Law Enforcement Service Areas	50
Source Documents	50
Analysis.....	51
Fire Protection.....	55
Summary	55
Fire Protection Service Areas	55
Source Documents	55
Analysis.....	56

Clark County Comprehensive Capital Facilities Plan, Summary Report

Transportation 61

 Summary 61

 Transportation Service Areas..... 61

 Source Documents 61

 Analysis..... 62

Conclusions 72

Citations 75

 RCW 36.070A.070..... 75

 RCW 36.070A.070 (6)(a)(iv)..... 75

Introduction

This report summarizes and analyzes capital facilities plans prepared by Clark County, cities in Clark County and service districts as required by RCW 36.70A (considering the guidance provided in the WAC). The submitted capital facilities plans contain large volumes of information required to be fully consistent with RCW 36.70A.070 (3).¹ This document does not replicate that information but provides a summary of that information; sources are cited so that if a reader wishes to pursue the background information, the reader would know exactly where to look.²

Our analysis is restricted to whether the information required under the law is available in the documents submitted by contributing agencies and whether that information demonstrates the ability of the jurisdiction or special district to provide service to their portion of the expanded urban areas at their stated level-of-service standard.

For the most part, unless required information is clearly missing, the submitted capital facilities plans were deemed to be in compliance. Additional analysis examining the relationship of the submitted capital facilities plans to the proposed land use plan focused on two critical issues:

1. Do the submitted plans provide either new capital facilities or expansions to existing capital facilities sufficient to meet the adopted level-of-service standard for that service when the demands from existing and expanded urban areas are considered? Alternatively, does the service provider propose a lowered level-of-service standard so that the provider can meet the demand from the existing and expanded urban areas?
2. Do the submitted plans primarily address the projected demand from existing and expanded urban areas with new or expanded capital facilities that are not funded in the first 6 years of the land use plan?

Neither of these issues directly cause inconsistency between the land use plan and the capital facilities plan but they are significant issues to be considered by the Board of County Commissioners in determining whether or not to adopt a particular distribution of population and employment between urban areas and the size of the resultant expansion areas.

¹ The texts of legal citations are provided, for convenience, in Appendix A to this report.

² All of the capital facilities plan documents referenced in this document are on file with Clark County Community Development, Long Range Planning Division.

Definitions

To ensure effective communication, this section of the document outlines some definitions used in this document.

Capital Facilities

While RCW 36.70A provides the requirements for a legally adequate capital facilities plan, the law does not define capital facilities. The definition is left to the Washington Administrative Code. For purposes of the Growth Management Act, the WAC provides only guidance rather than regulatory direction.

WAC 365-195-315 (2)(a) provides guidance by defining capital facilities as:

- Water,
- Sewer,
- Storm water,
- Schools
- Parks/Recreational Facilities
- Police
- Fire Protection

One area of possible confusion regarding the CFP is that the financial analysis of the CFP deals only with the cost and funding of the capital facilities themselves and not the operating costs of those capital facilities. Operating costs are only addressed as a result in the financial analysis for the CFP; increased operating costs reduce the funds available for capital expenditures given a fixed or marginally growing revenue stream.

Another area of confusion is the “omission” of transportation facilities from the definition of capital facilities in the WAC. It is not an omission; RCW 36.70A.070 (3) defines the required components of the CFP for those facilities the act deems to be capital facilities, while a separate section (RCW 36.70A.070 (6)) addresses the transportation element of the comprehensive plan which is required to have those items typically associated with a transportation CFP.

Required Components of a CFP

RCW 36.70A.070 (3) defines the required components of the CFP as:

- An inventory of existing publicly owned capital facilities including location and capacities.
- A forecast of future capital facilities needs.
- A listing of the proposed location and capacities of expanded or new capital facilities.
- A six-year financial plan for funding future capital facilities within projected funding capacities, which identifies the sources of public funds.
- A methodology for addressing reassessing the land use element if the probable funding falls short of meeting existing needs and to ensure consistency between the land use element, capital facilities element and the financing plan.

The definition of the requirements for the CFP leave some things “unsaid” and filling in the blanks may provide a better understanding of the relationship of the CFP to the land use plan. In particular:

- The forecast of future capital facilities needs is a direct function of the size (both geographic and density) of the urban area to be served, which is set by the land use plan. It is also a function of the level-of-service standard adopted by the jurisdiction for that particular capital service.
- The listing of future capital facilities should be directly tied to the identified needs and, while not explicitly stated, would provide greater understanding if planning-level estimates of cost were tied to that listing of facilities.
- The 6-year financial plan is a requirement that already exists elsewhere in state law. Review of that 6-year financial plan may indicate whether or not a particular urban area is ready to permit development in the expanded urban area – a general lack of programmed capital facilities in the 6-year financial plan to serve the expanded urban area may suggest that providers would not be able to serve that area until after the current 6-year window³. If it is clear that service providers could not provide facilities to all or some portion of the expanded urban area within the 6-year financial plan window, it may be appropriate to effectively communicate that situation through the adoption of urban holding zones on those areas.

Transportation Element Requirements

While the transportation element is treated separately from other capital facilities in the act, consideration of the ability of jurisdictions to meet the mobility needs of future population and employers is critical to the growth boundary decision. The transportation element is required to include:

1. Land use assumptions used for the transportation demand estimation.
2. Examination of facilities and service needs, which must itself include:
 - a. Inventory of transportation facilities and services
 - b. Local facility level of service standards
 - c. State highway level of service standards
 - d. Actions to address existing deficiencies (facilities not meeting level of service standards)
 - e. Forecast of traffic conditions for at least ten years based on the land use plan. This is interpreted to be a 20-year forecast since the land use plan includes land supply sufficient for 20 years of growth.

³ Care should be taken because, in some cases, for some service providers, there may not be a need for additional capital facilities to serve a particular expansion area. In that case, the lack of identified capital facility investment in an area may not indicate an inability to serve in the near term.

- f. Listing of state and local system needs to meet forecasted demand, where any state system improvements must be consistent with statewide multimodal transportation plan.
- g. Finance Plans, including:
 - i. Analysis of funding capability with respect to the listing of facilities needs. It is interpreted that this needs to be a 20-year examination of funding (since the facility needs list is based on a 20-year land use plan).
 - ii. A multi-year financing plan based on the identified needs that serves as the basis for the six-year transportation improvement program.
 - iii. A discussion of how to address a shortfall of probable funding that includes possible additional funding or adjustments to the land use assumptions.
- h. Examination of intergovernmental coordination including an assessment of how the county's transportation plan and land use assumptions relate to possible impacts on adjacent jurisdictions.
- i. Demand management strategies.

Like other capital facilities, most of these requirements relate to defining the demand on facilities, determining how to meet that demand and determining the short-term financial program for improvements. Transportation is different because multiple jurisdictions and agencies provide the facilities necessary for an individual's transportation demand to be met. Since transportation is not a typical utility where service is provided only upon payment of a connection fee and subsequent regular payments for consumption, travelers do not perceive the various jurisdictions and agencies that provide the capacity necessary for the travelers' mobility; a road is a road is a road, regardless of who built and maintains it. If growth occurs in such a quantity or in locations lacking in the necessary funding capability to provide the identified transportation improvements, the generated transportation demand will not be met or will be met at a lower than expected level of service. As such, it is very likely that increased regional cooperation and coordination will be needed to ensure that expansion areas do not impose unexpected external transportation impacts that the receiving jurisdiction does not have the ability to mitigate.

Water

Summary

Water is supplied both by cities and a separate service district, Clark Public Utilities (CPU), throughout the urban and rural area. The county does not own or operate public water systems. CPU is the major provider of water service outside municipal areas and for the City of La Center and Town of Yacolt. Water service to the incorporated areas is provided by the cities of Battle Ground, Camas, Ridgefield, Vancouver, and Washougal. Each water purveyor completes a 20-year Water System Plan which identifies existing inventories, forecasts future water supply needs, and provides revenue sources to fund capital improvements to meet the requirements of the GMA RCW 36.70A.070(3)(a)(b).

At the present time, all areas of the county fall within the designated service area of an existing water purveyor. With the exception of the availability of water supply, need for storage, conveyance and delivery of water to accommodate the planned growth of the urban areas, can be met based on the water system capital facilities plans reviewed. The issue of water supply is not one of there being insufficient water supply but that of obtaining the necessary water rights and the cost of alternative sources once traditional sources are fully tapped. There are also some issues relating to which provider delivers water to certain portions of the urban expansion areas.

Clark County Water System Planning

Provisions for adequate water supplies are of considerable concern to the county. The county's role is to coordinate with water purveyors ensuring that their actions are consistent with land use plans, service areas, and health regulations. In addition, under the Public Water System Coordination Act (RCW 70.116), Washington state's water utilities must coordinate their planning and construction programs with adjacent water purveyors and the Washington State Department of Health (DOH).

Clark County also established a Water Utility Coordinating Committee (WUCC) as a standing committee made up of representatives from each water purveyor, fire protection agencies, and DOH. The WUCC updates water utility design standards, establishes procedures in resolving conflicts between water purveyors, and updates the Coordinated Water System Plan (CWSP). The last update of the CWSP was completed in 1999 and should occur every five years and/or prepared following the completion of the GMA planning updates. The next update of the CWSP is targeted for 2005 with the completion of the county's comprehensive plan.

The CWSP fulfills the regulatory requirements as prescribed in WAC 248-56, Public Water System Coordination Act. The CWSP serves as the Regional Supplement for state approved Clark County water purveyor's individual water system plans, which are on file at WRDE, and together with the petition for Reservation of Public Waters, fulfill the requirements under WAC 173-590 relating to the reservation of water for future public water supply. The CWSP also serves as the county's Water General Plan as provided for in the County Services Act, Chapter 36.94 RCW.

Water Service Areas

All of Clark County is within the service area of a water system purveyor (as shown in the figure to the right). The boundaries of the service areas are coordinated through the Coordinated Water System Plan in order to provide for the most efficient provision of water service county-wide.

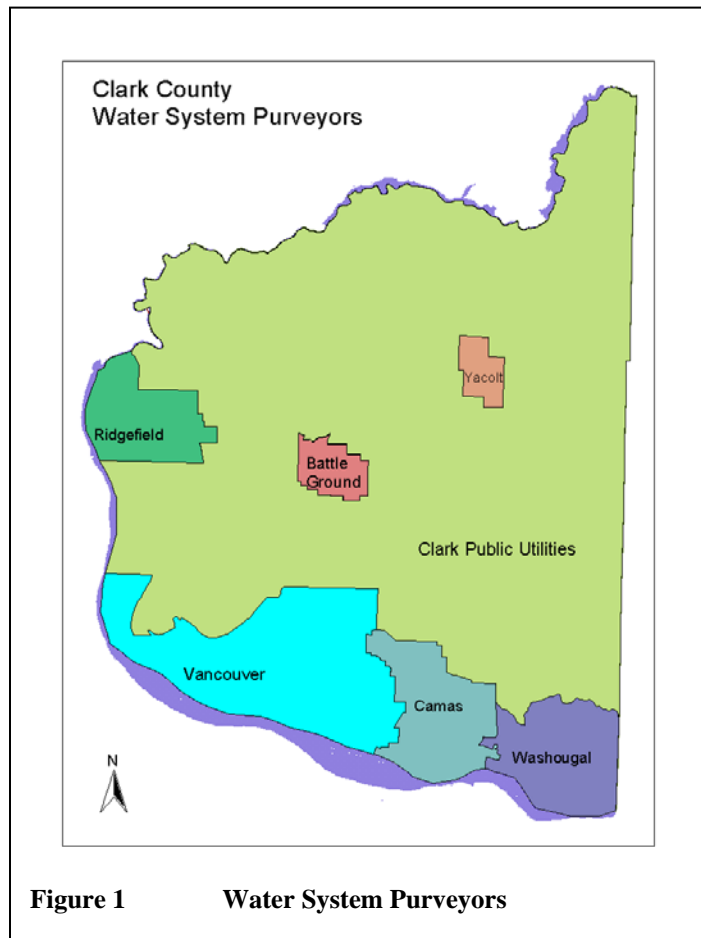
The proposed January 2004 plan map, if adopted, will require more extensive negotiations. For the most part, the expanded urban areas will be served by the associated cities, with the notable exception of expansions to the Vancouver Urban Growth Area where CPU is expected to provide water service to most of the expanded area. The areas intended for inclusion in the Battle Ground and Ridgefield urban growth areas are currently receiving water service from CPU and calls the question as to which provider delivers the water to certain portions of the urban expansion areas. This issue needs to be negotiated during the

update of the CWSP and subsequent interlocal agreement. Negotiations for establishing water utility service boundaries between water purveyors must address such issues as: potential boundary adjustments, duplication of infrastructure, future revenue resources, past capital investments, asset purchase, water sources/rights, and level-of-service. This list of issues is not inclusive, yet points to the magnitude of future WUCC discussions.

Water Resource

Clark County relies almost entirely on groundwater aquifers for public and private water use; including residential, commercial, industrial, and agricultural uses. In the past, the location and development of productive groundwater sources has been a significant problem for the water purveyors. As a result, numerous studies have been completed by the water purveyors to address the need for an adequate water supply to meet the projected growth of the county.

Washington State law also requires all water service providers to contact the Department of Ecology, before constructing a well or withdrawing any groundwater from a well, to obtain a water right permit. Unfortunately, processing of applications for additional water rights by DOE has been extremely limited since 1991. Those rights obtained have required considerable effort by the service purveyors. Each purveyor has made extensive



investment in watershed management programs both to document the impact of groundwater withdrawals on stream flows and to provide a basis for evaluation by DOE of additional water right applications.

Recently, CPU and the City of Vancouver have entered into an interlocal agreement to jointly explore the Vancouver Lake lowlands water source. It is hoped that through sharing of groundwater resources, a sufficient groundwater supply can be sustained with the expected growth in demand while continuing to reduce drawdown in watersheds considered essential to endangered salmon species. This water source is forecasted to serve the county-wide water needs beyond 2023.

Source Documents

The following capital facilities documents were reviewed for this analysis:

1. Clark Public Utilities Water System Plan (February 2003), Updated CFP project lists (March 2004)
2. City of Vancouver 2003 Water System Comprehensive Plan Update, Supplement to Approved 1996 Plan Vol. I and 2 (July 2003)
3. City of Washougal Water System Plan Update (September 1998) and Washougal Water System Capital Facility Draft Plan (December 2003)
4. City of Camas Water System Comprehensive Plan Vol. 1 and 2 (February 2002), City of Camas Comprehensive Plan and CFP (March 2004)
5. Clark County Coordinated Water System Plan, Regional Supplement (January 1999 update)
6. City of Ridgefield Draft CPF Update Chapter II Water Storage and Distribution (November 2003) and updated CFP analysis for urban expansion area. (June 2004)
7. City of Battle Ground Water System Plan (April 2004)

Analysis

The following questions respond to requirements needed to be consistent with GMA Capital Facilities Programs.

1. *Does the CFP contain an inventory of existing publicly owned facilities, with location and capacities?*

The water system plans of Clark Public Utilities, Battle Ground, Camas, Ridgefield, Washougal and Vancouver contain a detailed inventory of publicly-owned facilities, including location and capacities. A summary of current facilities and their associated capacity by each water purveyor is listed below.

Inventory of Current Facilities and Current Capacity

Clark Public Utilities – Current Facilities and Current Capacity	
Facility	Capacity
Water Source	33 wells with a total pumping capacity of 22,000 gallons per minute
Water Storage	26 water reservoirs with total volume of 11.6 million gallons of which 10.4 are available for use
Water Transmission and Distribution	600 miles of water mains and 24 pressure reducing valve stations to regulate water flow
Water Pumping Stations	42 booster pump stations with 100 individual pumps. There are 31 pumps with variable frequency drives that provide a range of water flow from 14 gpm to 1000 gpm. CPU has 3 emergency interconnections (2 with Battle Ground and 1 with Vancouver) to provide emergency water to those water purveyors.

City of Battle Ground -- Current Facilities and Current Capacity	
Facility	Capacity
Water Source	7 wells with a total capacity of 1,730 gallons per minute plus an intertie with CPU
Water Storage	6 water storage facilities with a total volume capacity of 3.91 million gallons
Water Transmission and Distribution	58 miles of transmission lines
Water Pumping Stations	8 booster pumps

City of Camas -- Current Facilities and Current Capacity	
Facility	Capacity
Water Source	9 wells with total capacity of 9,250 gallons per minute and 2 surface water reservoirs with a capacity of 1,050 gallons per minute
Water Storage	7 water storage facilities with a total of 8.45 million gallons of water
Water Transmission and Distribution	515,632 feet of water mains
Water Pumping Stations	6 booster pump stations

City of Ridgefield -- Current Facilities and Current Capacity	
Facility	Capacity
Water Source	3 wells with a total pumping capacity of 1,200 gallons per minute plus an intertie with CPU
Water Storage	4 water reservoirs with total volume of 1.1 million gallons
Water Transmission and Distribution	50,000 feet of water mains
Water Pumping Stations	None noted

City of Vancouver -- Current Facilities and Current Capacity	
Facility	Capacity
Water Source	40 wells with a pumping capacity of 76,000 gallons per minute
Water Storage	4 reservoirs and 5 water storage tanks
Water Transmission and Distribution	800 miles of pipes and over 57000 service connections
Water Pumping Stations	100 booster pump stations

City of Washougal -- Current Facilities and Current Capacity	
Facility	Capacity
Water Source	8 wells, of which 6 are in service with a total pumping capacity of 4,370 gallons per minute plus an intertie with Camas
Water Storage	5 reservoirs providing 3.6 million gallons of water storage.
Water Transmission and Distribution	209,600 feet water mains range in size from ¾ inch through 14 inch
Water Pumping Stations	4 booster pump stations

2. *A forecast of future needs is provided that is consistent with the land use plan that the Board identified on January 14, 2004.*

The **Clark Public Utilities** Water System CFP projects the demand for water supply in terms of equivalent residential units (ERU). In the CPU CFP, the revised 2000 state Office of Financial Management (OFM) low, medium and high projections were used to estimate overall water demand for residential uses while non-residential uses were estimated based on the high population growth projections. To the degree that these estimates of demand are higher than those that would be generated from the specific plan forecast (January 14, 2004), these estimates would be conservative (i.e., they would provide for more capital investment than would be estimated from the specific plan forecast. CPU identifies the list of needed facilities to support the Comprehensive Plan for a 6- and 20-year planning periods. CPU has also identified that the City of Ridgefield and the City of Battle Ground may require additional aid during the expansion of their water districts. The Pioneer well field located near Ridgefield could help supplement the 20-year water needs of both cities when the Vancouver Lake lowland water source comes on line in the next 3-4 years. Additional water supply could also be provided to both cities from the Vancouver Lake lowland source by mutual agreements to cover the 20-year growth needs for both Battle Ground and Ridgefield.

The **City of Battle Ground** water service area provides water to their service area and has an interconnection or intertie with CPU. CPU now serves water to customers outside of the current Battle Ground water service area and provides water to the city during the peak summer demands. Water system needs were assessed based on projected EDU as outlined by the DOH. System improvements in the 6-year CFP and 20-year are consistent with the land use plan identified on January 14, 2004. It was noted that a new source of water in the 20-year planning period is needed. Drilling new wells in the city, however, is not going to supply all of the city's demands over this planning period. A wholesale water agreement with CPU and/or the City of

Vancouver will be needed to meet the city's long-term water needs. Future recruitment of industrial development is not expected until Battle Ground obtains a large source of water.

The **City of Camas** water service area extends north of the city's urban growth area and is linked to CPU on the north, the City of Vancouver's system on the west, and the City of Washougal's system on the east. Over 50 percent of the water service area is located outside of the UGA. The proposed expansion area is currently within the city's water service area and included in the city's water system plan. Projected water use for the city is forecasted based on projected EDU as outlined by the DOH and three growth alternatives due to the large percentage of industrial water use.

Industrial use is approximately 42 percent of the city's water service and was calculated independently from the city's anticipated population growth by assigning water consumption of 3,000 gallons per day per net-acre of light industrial land, assuming a build out year of 2040 and simulated industrial growth over the next 20-years. Wafertech, the city's largest individual water user is in the planning stages of expanding its manufacturing plant. Due to the uncertainty and significant impact to the city's water system, three growth alternatives were developed based on Wafertech's demand projections.

Based on future water use projections and current available annual water rights from its existing sources, the City of Camas will maximize their current sources and should acquire new water rights in order to meet the growth in the next 20-years. Depending on Wafertech's expansion plans and the effectiveness of the city's conservation program, projected water demand deficiency may occur in the next 6-years. Currently the City is pursuing and funding water rights applications through the capital facilities plan.

The **City of Ridgefield** provides water to their service area and has an interconnection with CPU east of I-5. Water system needs were assessed based on projected EDU as outlined by the DOH. System improvements in the 6-year CFP and 20-year are consistent with the land use plan identified on January 14, 2004. The city has identified that they have sufficient water source over the 6-year period to supply the needs of their current water system boundary. If growth occurs in the expanded UGA, Ridgefield will need to develop additional water sources in the 6-year period and rely on a second intertie with CPU. In addition, infrastructure improvements for water mains, storage, pumping stations, etc. would need to be programmed into the 6-year period with an estimated project cost of \$1,080,000.

The **City of Vancouver** provides water service to portions of the unincorporated Vancouver UGA which is outside of the Clark Public Utilities District Designated Water Service Boundary, respectively. Clark Public Utilities CFP has proposed certain expansions of the Vancouver UGA which are adjacent to the City of Vancouver existing water service boundaries.

The increase demand on the Vancouver water system to support the new UGA additions is not significant compared to the large existing water Vancouver infrastructure. Water supply capacity is in place to immediately serve the new areas. Future water source development is underway. The City of Vancouver has entered into an agreement with CPU to jointly develop the Vancouver Lake lowland area. Water distribution for the new areas can be accomplished without City capital improvements but rather by means of developer connection to existing facilities and extension to and throughout the new additional properties.

Vancouver will formally incorporate these areas into the Water System Comprehensive Plan and submit these updates to the Washington State Department of Health and Washington State Department of Ecology. These submittals will be made after designation of service provider areas is confirmed and final adoption of the UGA additions is complete.

The **City of Washougal** serves the Washougal Urban Growth Area and designated urban reserve. The city's water service area boundary is bordered by the City of Camas to the west and Skamania County on the east. The northern boundary line connects with CPU. The city has an interlocal agreement with the City of Camas for delivery of emergency water through two interties. As the expansion of the city's UGA is limited to 2 parcels located in their urban reserve area, extension of the water system will be provided through new water system development connection fees. The increased demand on Washougal's water system to support the new growth projections will result in three potential groundwater development areas with the preferred new well on-line to serve future demands by 2009.

3. *A listing is provided of proposed expansions to capital facilities or new capital facilities that are capable of providing for the needs identified in the forecast. This should be a "20-year listing" since the land use plan covers a 20-year period.*

The **Clark Public Utilities** CFP contains a list of projects, period of time needed, capacities, cost and funding sources for the 20-year planning period. The 20-year project costs are projected to total \$149,080,374.

The **City of Battle Ground** CFP contains a list of projects, cost and funding sources for the 20-year planning period. The 20-year project costs are projected to total \$13,549,000.

The **City of Camas** CFP contains a list of projects, period of time needed, capacities, cost and funding sources for the 20-year planning period. The 20-year project costs are projected to total \$27,590,500.

The **City of Ridgefield** contains a list of projects, period of time needed, cost and funding sources for the 20-year period. The 20-year project costs prior to the UGA expansion total \$6,400,000 and increase to \$13,880,000 with the expansion.

The **City of Vancouver** proposes to extend water service when development occurs (through requiring the developer to provide the necessary service extension) or by

negotiating with Clark Public Utilities for existing facilities. As such, the City of Vancouver plan does not explicitly contain a 20-year capital facilities list since the city is not planning to directly make such investments.

The **City of Washougal** contains a list of projects, period of time needed, capacities, cost and funding sources for the 20-year planning period. The 20-year project costs are projected to total \$6,625,000.

4. *A 6-year financial plan is developed for funding those expansions or new capital facilities that are expected to be needed within the first 6-years of the plan. That financial plan must be fully balanced. The identified needs must have known funding sources (even if those funding sources may require voter approval).*

The **Clark Public Utilities** CFP outlines the facilities needed in the first 6-years of the Comprehensive Plan. The list of 226 projects is organized by project type.

Clark Public Utilities 6-Year CFP Summary			
Capital Facility Project Type	Number of Projects	Cost (millions, 2004 dollars)	Funding
General Plant	23	\$3.9	
Reservoirs & Boosters	38	\$6.1	
Main Extensions/Upgrades	143	\$19.6	
Source of Supply	22	\$12.1	
Meters/Meter Installation	--	\$0.9	
TOTAL	226	\$42.7	Water rates, connection fees

The **City of Battle Ground** Water CFP contains a 6-year program of water system improvements and source development projects. The City of Battle Ground water service area includes the new expansion area and the projects contained in the 6-year program provide for improvements to the water service system to support the new areas.

City of Battle Ground 6-Year CFP Summary			
Capital Facility Project Type	Number of Projects	Cost (millions, 2004 dollars)	Funding
Reservoirs & Boosters	--	\$.25	
Main Extensions/Upgrades	--	\$1.272	
Source of Supply	--	\$7.8	
Telemetry/Treatment	--	\$2.585	
TOTAL		\$11.907	Water rates, connection fees

The **City of Camas** Water CFP contains a 6-year program of water system improvement and source development projects. The City of Camas water service area includes the new expansion area and the projects contained in the 6-year program provide for improvements to the water service system to support the new areas. The City of Camas water system is part of a water-sewer utility that is accounted for as one utility. The program identifies funding from new water connection system development charges and user fees. Cash and investment reserves not dedicated to debt service on revenue bonds are split approximately 51.47 percent water and 48.53 percent to wastewater. The city is anticipating water sales to increase annually by 5.4 percent for residential and commercial customers and by 6.4 percent for industrial customers. It is projected that the city will be able to finance all capital improvements and maintain adequate financial reserves.

City of Camas 6-Year CFP Summary			
Capital Facility Project Type	Number of Projects	Cost (millions, 2004 dollars)	Funding
General Plant	1	\$.21	
Reservoirs & Boosters	3	\$1.9	
Main Extensions/Upgrades	9	\$7.034	
Source of Supply	7	\$6.976	
TOTAL	20	\$16.12	Water rates, connection fees

The **City of Ridgefield** CFP contains a 6-year program of water system improvements and source development projects. The City of Ridgefield water service area includes the new expansion area and the projects contained in the 6-year program provide for improvements to the water service system to support the new areas. System improvements in the 6-year CFP prior to the inclusion of the new UGA boundary area total \$2.2 million. With 800 connections anticipated over 6-years and a system development fee of \$2,000, only \$1.6 million will be collected. Although there is a projected surplus in estimated revenue versus project costs in the long-term, the city may need alternative funding to support capital improvements if demand for water occurs prior to the sufficient collection of system development fees.

City of Ridgefield 6-Year CFP Summary			
Capital Facility Project Type	Number of Projects	Cost (millions, 2004 dollars)	Funding
General Plant			
Reservoirs & Boosters	2	\$2.2	
Distribution/Transmission	3	\$0.5	
Source of Supply	2	\$0.5	
Intertie with CPU	1	\$0.08	
TOTAL	8	\$3.28	Water rates, connection fees

The **City of Vancouver** Water CFP contains a short list of projects for the 6-year period. Based on discussion with city staff, these capital projects are related to serving the existing urban area. No additional capital investment by the city will be needed to serve the expansion areas. Any required water distribution system expansion to serve the new urban areas will be provided by the developers as they extend service to reach their urban developments.

City of Vancouver 6-Year CFP Summary			
Capital Facility Project Type	Number of Projects	Cost (millions, 2004 dollars)	Funding
Reservoirs & Boosters	--	--	
Main Extensions/Upgrades	17	\$3.2	
Source of Supply	3	\$11.8	
TOTAL	20	\$15	Water rates, connection fees

The **City of Washougal** Water CFP contains a short list of projects for the 6-year period. Revenue to finance the 6-year capital improvement program is uncertain. The city depends on water system development fees to fund improvements. Although there is a projected surplus in estimated revenue versus project costs in the long-term, the city may need alternative funding to support capital improvements if demand for water occurs prior to the sufficient collection of system development fees.

City of Washougal 6-Year CFP Summary			
Capital Facility Project Type	Number of Projects	Cost (millions, 2004 dollars)	Funding
Reservoirs & Boosters	1	\$0.65	
Main Extensions/Upgrades	4	\$0.80	
Source of Supply	2	\$1.22	
Meters/Meter Installation			
TOTAL	7	\$2.67	Water rates, connection fees

Regional Issue of Water Supply

Clark County relies almost entirely on groundwater aquifers for public and private use. The relevant components of the physical environment include topography, groundwater, climate, surface water, site sensitive areas, geology and soils and are tied to the physical environment within each service provider. Each component within a service provider's area dictates the complexity of providing water service. In addition, DOE must process and provide additional water rights.

The location of the proposed expansion areas, are currently served by a water purveyor. To support the forecasted growth, new water supply areas would need to be developed and water rights either issued or transferred from other wells regardless of who provides the water. Each water system plan reviewed discusses the need to obtain new water sources and water rights within the next 6-years.

Level of Service

The Coordinated Water System Plan coordinates the policies and goals of the GMA. Each purveyor as part of their individual water system plans is required under WAC 246-290-100 to identify their standards and support the minimum design and performance standards for the county. Water demands include average day demand, maximum daily demand, peak hourly demand, and fire protection demands. Each water purveyor uses the equivalent residential units (ERU) methodology to summarize water demand for non-residential users and historic records are primarily used for residential users. The development of ERUs for the CFPs is based on guidelines prepared by DOH.

Fire protection is considered an indirect concurrency service. The county has developed fire protection standards based on land use. The county-wide minimum general water service provision to provide fire protection is shown in the table below.

Clark County Fire Flow Requirements		
Land Use Zones	Fire Flow Requirements (gpm)	
	Minimum	Maximum
Commercial	1,000	2,500
Agriculture to Suburban Residential	500	1,000
Single-Family to Duplex	1,000	-----
Apartments- High to Medium Density Residential	1,500	3,000
Large Commercial and Industrial	2,000	-----

All water purveyors meet or exceed the minimum standards for water demand, storage demands, service pressures, and reliability either through their own system or the procurement of water through interconnections with adjacent purveyors. An ongoing upgrade of water distribution facilities that improve the water needs over the next 20 years will be monitored and adjusted by area as growth occurs.

Sewer

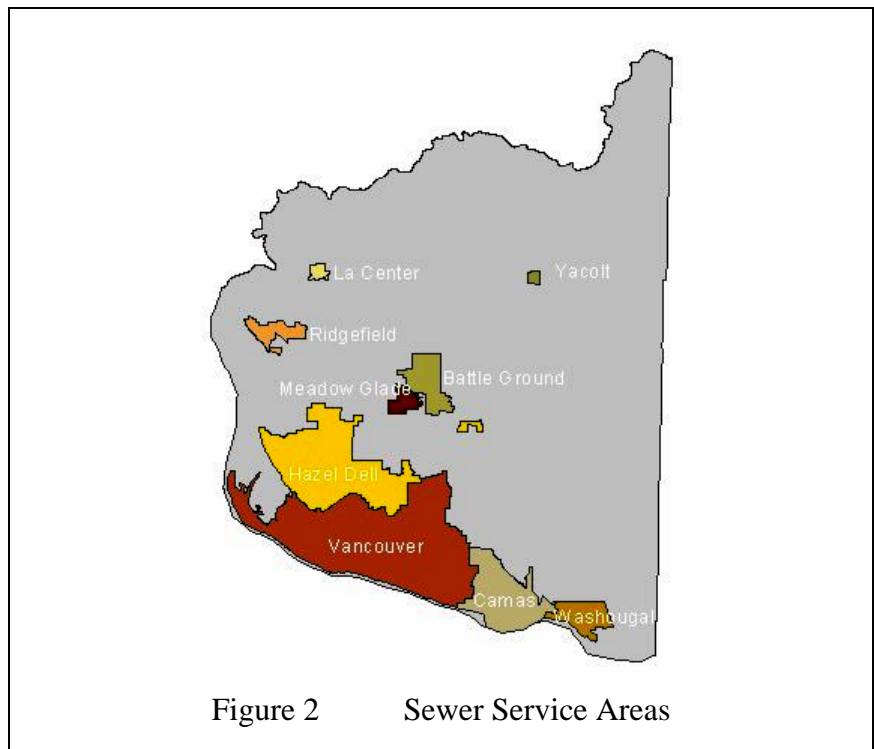
Summary

In a similar fashion to water, sewer service to the urban areas is generally provided by the jurisdiction associated with each urban area with the notable exception of a portion of Vancouver Urban Area where service is provided by a combination of Clark County (sewage treatment plant) and Hazel Dell Sewer District (collection and conveyance). For most urban areas, sewer capital facilities plans provide for sewage collection and treatment to meet the expected needs of the future population. The provision of treatment capacity in some areas may represent a constraint in the timing of urban development, as major expansions to treatment capacity are necessary to accommodate the growth. Some of these constraints may be relieved through regional cooperation between sewer system providers.

Sewer Service Areas

Except where sewer was extended to address declared health emergencies or regional public facilities, sewer service is confined to the urban areas (as shown in Figure 2). For the most part, the jurisdictions associated with particular urban areas are the providers of sewer service. Notable exceptions are:

- ◆ A portion of the Vancouver Urban Area is provided sewer collection and conveyance by Hazel Dell Sewer District with treatment at the county's Salmon Creek Sewage Treatment Plant
- ◆ Hazel Dell Sewer District also conveys sewage collected by the City of Battle Ground sewage system, and the Hockinson and Meadow Glade Septic Tank Effluent Pumping (STEP) systems.
- ◆ The sewer collection system and wastewater treatment facility serving La Center is owned and operated by Clark Public Utilities.



Source Documents

The following capital facilities documents were reviewed for this analysis:

1. City of Camas Comprehensive Plan, Public Facilities, Services and Utilities Element (December 2003).
2. Hazel Dell Sewer District Capital Facilities Plan (March 2001)
3. HDSD CFP update from Chuck McDonald, District Engineer (Feb. 19, 2004 letter and June 9, 2004 e-mail)
4. City of Vancouver Draft Comprehensive Plan.
5. City of Vancouver Wastewater Collection System Comprehensive Master Plan Year 2000 Update.
6. City of Vancouver Sanitary Sewer Master Plan Amendment (August 1990)
7. City of Washougal Capital Facilities Plan (December 29, 2003 Draft)
8. Town of Yacolt Waste Water Management Plan (2002)
9. Yacolt Comprehensive Growth Management Plan (2004)
10. Salmon Creek Waste Water Treatment Plan Master Plan (March 2004 Draft)
11. La Center Water Reclamation Plant Sewer Plan Update, August 2001
12. La Center Water Reclamation Plant Facilities Plan, Aug. 2001, Revised Feb. 2003
13. Sewer Element, Capital Facilities Plan, La Center, June 2, 2004
14. Facilities Plan for the City of Ridgefield, Feb. 1997
15. Ridgefield Capital Facilities Plan, Nov. 6, 2003 Draft
16. Memo to City of Ridgefield on Sewer and Water Capital Facilities Impacts of Proposed Urban Boundary Expansion Areas, Wallis Engineering, June 4, 2004
17. City of Battle Ground General Sewer Plan, May, 2004

Analysis

The following questions respond to requirements needed to be consistent with GMA Capital Facilities Programs:

1. *Does the CFP contain an inventory of existing publicly owned facilities, with location and capacities?*

The **City of Camas** CFP has an inventory of facilities. The description of location depends upon a map (which was not included with the reviewed material). The discussion of capacities of the waste water system was restricted to the treatment plant (a stated capacity of 6.1 million gallons daily on an average annual basis). The city's documents also noted that an update to the general sewer plan was expected in 2004.

Hazel Dell Sewer District has provided an inventory of facilities that includes their capacities and locations.

The **City of Vancouver** has an inventory of wastewater facilities when all of the documents reviewed are considered.

The **City of Washougal, the City of Battle Ground and Clark Public Utilities (La Center)** also have completed inventories of wastewater facilities with locations and capacities.

Clark County, as owner of the Salmon Creek Waste Water Treatment Plant and interceptor has a draft wastewater facility plan which includes an inventory of facilities and their location and capacity.

The **Town of Yacolt** has no existing publicly owned wastewater facilities.

The **City of Ridgefield** Capital Facilities Plan includes an inventory and data on the capacities of existing publicly owned facilities which is supplemented by the draft update.

2. *A forecast of future needs is provided that is consistent with the land use plan that the Board identified on January 14, 2004.*

The cities of **Battle Ground, La Center, Vancouver, Washougal, the Hazel Dell Sewer District and Clark County** have completed forecasts of future needs for wastewater capital facilities. These plans were based on assumptions of future households and ERUs equal to or greater than the future needs that would result from the Board Jan. 14 land use plan. The City of La Center forecast, for example, includes an analysis of demand from their proposed Timmen Road UGA expansion, which is not included on the Jan. 14, 2004 map.

The **City of Camas** sewer plan does not include an updated forecast of future wastewater needs; the city expects to complete an update of the general sewer plan this year. The existing city wastewater treatment plant is projected to reach capacity in 2015.

The **Town of Yacolt** General Sewer Plan does not quantify future needs, but instead describes a short-term program of community-wide septic system inspection and maintenance and the expected timeline for design and construction of a public sewer system to include septic tank effluent pumps, gravity sewers and a wastewater treatment facility.

The draft update of the **City of Ridgefield** Capital Facilities Plan and memo on the Jan. 14 expansion areas presents a reasonable forecast of future needs. It should be noted that the downstream impacts of the additional flows (455,250 gpd max. day) from the four areas added to the expansion proposal in January were not evaluated.

3. *A listing is provided of proposed expansions to capital facilities or new capital facilities that are capable of providing for the needs identified in the forecast. This should be a "20-year listing" since the land use plan covers a 20-year period.*

The **City of Camas** plan includes a \$12.7 million list of expansions and new wastewater capital facilities proposed as part of the city's 20 year CFP. The listing does not address any major expansion of capacity for the wastewater treatment plant which is expected to reach capacity in 2015.

The La Center Water Reclamation Plant Facilities Plan update in February, 2003 provides a detailed list of facility improvements that would expand treatment capacity to handle projected growth through 2027 at a cost of \$3.75 million (2001 dollars). Plans for the collection system in La Center have not been updated, with the exception of the proposed pump station and force main to serve the Timmen Road area. The August 2001 Clark Public Utilities sewer plan refers to a 1997 Master Plan by Harper Righellis which analyzed build out of the current UGA. The plan identified eight trunk sewer extensions to be funded by development to serve the existing UGA. No evaluation of collection system needs was provided for the proposed expansion areas, however Clark Public Utilities staff verified that these trunk line sizes will be adequate based on their analysis. Collection lines and service laterals are constructed by developers.

Clark County, as owner of the Salmon Creek Waste Water Treatment Plant and the interceptor/pump station and force main system that conveys sewage to the plant has developed a 20-year list of expansions to those facilities with an estimated cost of more than \$121 million (2004 dollars). It should be noted that beyond the near term Phase 4 expansion, several options are under consideration including; 1) expansion as outlined in the draft plan; 2) construction of a new treatment system in Battle Ground and 3) increased diversion of flows to the Vancouver treatment plant system to take advantage of existing capacity. The possible formation of a regional wastewater treatment entity is being studied to assess the potential for economies of scale and more interconnections between existing sewer service providers.

Hazel Dell Sewer District has provided a 20-year list of proposed capital facilities that are capable of providing for the needs identified in the forecast. The total program cost is \$19,662,700. Line extensions and pump stations necessary to serve the urban expansion areas within its service district are identified and costs for providing these facilities have been estimated.

The **City of Vancouver** lists expansions and new wastewater capital facilities in its CFP. While the city has informed county staff that no publicly financed trunk extension will be required to serve the expanded urban area within the city's sewer service area and that the existing waste water treatment plan capacity is sufficient to serve the growth projected within the city's sewer service area, the city's waste water CFP indicates \$91.2 Million of public projects over the next 20 years.

The **City of Washougal** Capital Facilities Plan includes a list of proposed collection system improvements (\$3,717,250) and upgrades to wastewater capital facilities (\$9,750,000) to accommodate 20 year growth projections.

The **Yacolt** Comprehensive Growth Management Plan contains a 20 year list of wastewater management projects including the estimated costs and financing methods to be used. Long-term costs for Yacolt's wastewater management program were estimated to be \$5,017,000 through year 2022.

The draft **City of Ridgefield** Capital Facilities Plan and June 4, 2004 memo combined identify a 20 year list of sewer collection projects (\$13,395,000) and wastewater treatment plant improvements (\$14,500,000) that will be needed. Both documents note that this list includes only major sewers and pumping stations. It is

also noted that due to environmental constraints, trunk sewers in stream corridors will have to be constructed up-slope of the stream. Parallel sewers are likely to be needed in many locations to provide gravity service to the other side of the stream corridor. The costs of these parallel sewers are considered project improvements rather than system improvements and are not included in the CFP.

The City of **Battle Ground** capital facilities plan identifies a 20-yr list of collection system projects with a total cost of \$17.85 million.

4. *A 6-year financial plan is developed for funding those expansions or new capital facilities that are expected to be needed within the first 6-years of the plan. That financial plan must be fully balanced. The identified needs must have known funding sources (even if those funding sources may require voter approval).*

The **City of Camas** identifies \$7.8 million worth of sewer system improvements planned for the next six years but does not explicitly identify the sources of funding for those projects. A general discussion of policies guiding sewer rate reviews is provided which suggests that the city may review and adjust sewer rates as needed to provide the necessary funding.

Clark County (as owner of the Salmon Creek Waste Water Treatment Plant) has included needed improvements to the waste water treatment plant in a six-year program for the sewer program. Bonds are expected to be issued for this expansion with revenue being generated by regional utility charges to the users of the plant (Hazel Dell Sewer District and the City of Battle Ground).

The Clark Public Utilities (La Center) sewer plan identifies \$504,600 in improvements from 2005-2010, primarily sewer trunk line extensions which would be 100% financed by developer contributions. About \$2.5 million in treatment plant expansion work will be financed through a combination of SDCs (53%) and rates (47%). Construction financing loans will be from the Public Works Trust Fund or revenue bonds.

The **Hazel Dell Sewer District** capital program lists capital projects with a total cost of \$12.4 million to be constructed in 2004 – 2008 with another \$2.6 million in projects slated for 2008-2012. Funding sources include developer contributions, capital improvement funds, connection charges and replacement & restoration reserves.

The **City of Vancouver** has the elements of a 6-year capital program in several different planning documents. The programmed list of projects totals \$32.0 million. Revenues are managed jointly between the water and sewer programs. Operating revenues generated by the joint utility are expected to generate \$24 million (but not all of that revenue is available for capital expenditures in either program). Sewer system development charges are expected to generate \$24 million of the needed revenue. The city estimates that \$35 million in capital reserves will be accumulated over the 6-year programming period.

The **City of Washougal** identifies \$7.5 million in needed improvements to the city's sewer system over the six year period. Projected revenues of \$4 million in system

development charges are anticipated in the next six years. The recommended financing plan suggests an SDC of \$3,528 per EDU to pay for the proposed list of 20 year projects.

The **Yacolt** Comprehensive Growth Management Plan includes a 6-year capital program of wastewater management projects including the estimated costs and financing methods to be used. Yacolt will depend upon grants and loans from Washington State Ecology, HUD—CDBG program and the US Dept of Agriculture, as well as possible federal appropriations, to cover the cost of planning, designing, permitting and constructing a public sewer system.

The draft **City of Ridgefield** Capital Facilities Plan identifies \$3.6 million in projects related to wastewater treatment plant expansion over the next six years. Collection system capital improvement projects are not prioritized or scheduled. The six year financing plan notes that if System Development Charges are increased from the current \$4,000 per EDU to \$5,717 as suggested in the draft report, approximately \$6.1 million in connection revenues would be raised from the remaining 0.4 Mgd of treatment capacity. This would be sufficient to pay for debt service on the Phase 1 project (\$1,356,000 over 6 years) and fund the Phase 2 plant expansion (\$3,600,000) but little would be left to finance collection system improvements.

The City of **Battle Ground** recently completed a sewer capital facilities plan that rates collection system projects on a 1 to 7 priority scale, but does not include a 6-year financial plan or capital construction program.

Significant Issues

Salmon Creek Wastewater Management System

Based on the analysis provided, the Phase 4 expansion of the Salmon Creek Wastewater Management System will need to be completed by 2008 including:

- A parallel interceptor from Betts Bridge to Klineline Park
- A new pump station at Klineline Park
- Rehabilitation & repair of the 36th Ave Pump Station
- Construction of two 30"- 36" force mains from Klineline Park to Salmon Creek Treatment Plant
- Treatment plant capacity improvements

The current schedule is for the \$56.18 million Phase 4 expansion to be completed by mid-2007. The decision to move the new conveyance facilities out of the Salmon Creek greenway into public street rights-of-way was primarily based on the high risk of delays in permitting and impacts to private property. There remains a degree of risk that this critical project could be delayed due to permitting or a variety of other factors.

There is also a question as to whether the existing capacity will last through 2008. There may be more "cushion" in the available capacity than it appears because flow projections used in the draft plan are quite conservative. For instance, the plan assumes an average annual flow of 7.5 mgd for 2003, while the actual flow was 6.5

mgd. Another variable is rainfall which contributes to the flow reaching the treatment plant through inflow and infiltration. A return to wetter-than-average rainfall patterns like those occurring in the mid-1990's could exhaust available capacity before the new facilities come online.

The only variable subject to some control by local jurisdictions is the pace of growth within the service area. Typically, a large UGB expansion triggers initial rapid development. Given the limited capacity and the uncertain timing of improvements, urban holding could be a useful tool to ensure that urban growth in the expansion areas for City of Battle Ground and the unincorporated Vancouver Urban Area served by the Salmon Creek Treatment Plant coincides with the provision of adequate sanitary sewer facilities. An alternative could be a concurrency program that carefully monitored the number of new connections (ERUs committed) and allowed a de facto development moratorium to occur when the existing facilities reach their design capacity.

The City of Ridgefield

A significant short term issue is that the existing sewer lines in the downtown area were not sized to serve flows from the current urban growth area and have almost reached the limits of their capacity. A large pump station is planned along Gee Creek near Pioneer Street which would be the central collection point for flows from the entire urban growth area to the south and west, conveying wastewater to the treatment plant through a new interceptor sewer that bypasses downtown. The city has applied for a Public Works Trust Fund loan, but has not yet secured financing or identified the timing of this critical project.

The draft capital facilities plan identifies an extensive list of collection system improvements needed to make urban development possible in much of the current UGA. These improvements are not prioritized or scheduled. The six year financing plan notes that even with an increase in the systems development charge (SDCs) to \$5,717, connection fee revenue "will pay for treatment plant expansions, but leaves little for collection system improvements." While interim borrowing is not unusual for sewer capital improvements, a more complete financing plan and construction schedule would better demonstrate the city's intention and financial capacity to serve the large undeveloped portions of the current UGA.

There is a potential that permitted wastewater treatment plant capacity will become a limiting factor within the next 10 years. The current Department of Ecology permit for the Ridgefield wastewater treatment plant only approves a flow of 0.5 mgd rather than the nominal plant capacity of 0.7 mgd. This limitation is the result of contention between the DOE and the City regarding the capacity of Lake River to handle additional outflow. A two year mixing zone study is currently underway to assess the impacts of treated effluent on the river. Until this issue is resolved or an outfall to the Columbia River is built (shown in the draft CFP as part of Phase 3 in 2011-2013), the existing treatment plant capacity could be constrained by permit limits to 0.5 or 0.7 mgd. It is open to question whether a DOE permit would be approved for Phase 2 expansion, which assumes the construction of a larger outfall to Lake River and increases plant capacity to 1.0 mgd.

One of the areas proposed for addition to the UGA (Area #4) on the west side of NW 31st Avenue should be reconsidered because it would require the extension of a planned but unfunded trunk sewer an additional 3,500 feet to the southeast through rural properties. Due to the terrain, Area #4 is not a logical expansion of the urban growth area. Future development of this area is not likely to support the cost of the public improvements needed to serve it.

The Town of Yacolt

Due to its small population and limited potential rate base, Yacolt will likely have difficulty financing the large capital projects necessary to transition from private individual sewage disposal to a collection and treatment system. However, no expansion of the urban growth boundary is proposed.

The City of Battle Ground

A large proportion of the urban growth expansion area is proposed to be in the Battle Ground UGA. The financing element of their capital facilities plans is still being developed. Therefore it cannot be determined at this time if a financially balanced 6- year plan is feasible. The sewer plan assumes that Hazel Dell Sewer District will have capacity available to lease prior to completion of the Phase 5 & 6 expansions of the Salmon Creek Wastewater Management System (SCWMS), which has not been verified.

Hazel Dell Sewer District

Revenue requirements per ERU could increase substantially over the next several years to pay off bonded debt for the SCWMS treatment plant and interceptor expansions. It is likely that an increasing share of these costs will be borne by ratepayers.

Storm Water

Summary

Traditionally, storm water management has primarily been a function of development activity, but is increasingly becoming a concern for water quality as well as water quantity. One of the trickier issues will be to retrofit existing development that has minimal or no stormwater detention/retention capability. This will be an issue for both the county and its cities but would eventually need to be addressed even if jurisdictions were not planning for additional urban area. Much of what happens will depend on revisions necessary to meet National Pollutant Discharge Elimination System (NPDES) requirements and there may be corresponding actions needed because of endangered species concerns. Most of the jurisdictions reviewed are addressing storm water capital facilities to some extent but not all may be fully responsive to the legal requirements for capital facilities plans.

Background

The issue of stormwater has historically been addressed by developers when they develop property. The response has been an engineering solution to address water quantity, that is, to deal with the volume of water that could conceivably run off from the developed portion of the site. Most often stormwater is required to be detained or retained on-site. It is only more recently that issues of water quality are being addressed. Water quality issues require a different set of responses.

The county and its cities are responsible for addressing the water quantity and water quality impacts of development. The need to address water runoff issues comes from a provision in the county's discharge permit (NPDE, permit), which is issued by the Washington Department of Ecology. Water runoff is addressed through the use of stormwater facilities, which are manmade structures, such as temporary water holding ponds, dry wells, pipes and bioswales that help reduce flooding, slow water flow and clean contaminants from the water. Often stormwater carries contaminants such as soil, oils, chemicals, and other debris picked up from the surfaces over which it flows. In these areas, stormwater is routed off streets and parking lots into stormwater facilities.

The NPDES permit requires that the county have "a program to control runoff from new development, redevelopment and construction sites that discharge to the municipal storm sewers owned or operated by the permittee. The program must include: ordinances, minimum requirements, and best management practices (BMPs) equivalent to those found in Volumes I through IV of Ecology's Stormwater Management Manual for the Puget Sound Basin (1992 edition), permits, inspections and enforcement capability." The Clark County Community Development Department implements the following development regulations to control storm water's adverse impacts on streams, wetlands, lakes, ground water and wildlife habitat:

- Stormwater and Erosion Control Ordinance, CCC Chapter 40.380
- Critical Aquifer Recharge Areas Ordinance, CCC Chapter 40.410
- Habitat Conservation Ordinance, CCC Chapter 40.440
- Wetland Protection Ordinance, CCC Chapter 40.450

The Clark County Public Works Department issues and enforces permits for utility construction in county rights-of-way.

The NPDES permit also requires that the county have “operation and maintenance programs for new and existing stormwater facilities owned or operated by the permittee, and an ordinance requiring and establishing responsibility for operation and maintenance of other stormwater facilities that discharge into municipal storm sewers owned or operated by the permittee. The program shall include the disposal of street waste, decant, and cooperative efforts with Ecology and other entities to develop decant solutions.”

Public Works’ Operations Division maintains all county-owned storm sewers and roadside ditches, while private facilities and storm sewers are maintained by the owner or operator. Catch basins, storm drains, ponds, bioswales, and pipes must be cleaned and maintained in order to operate efficiently. Clark County maintenance crews regularly clean catch basins, mow swales, and clean areas around detention ponds, and perform other activities to ensure these facilities function properly.

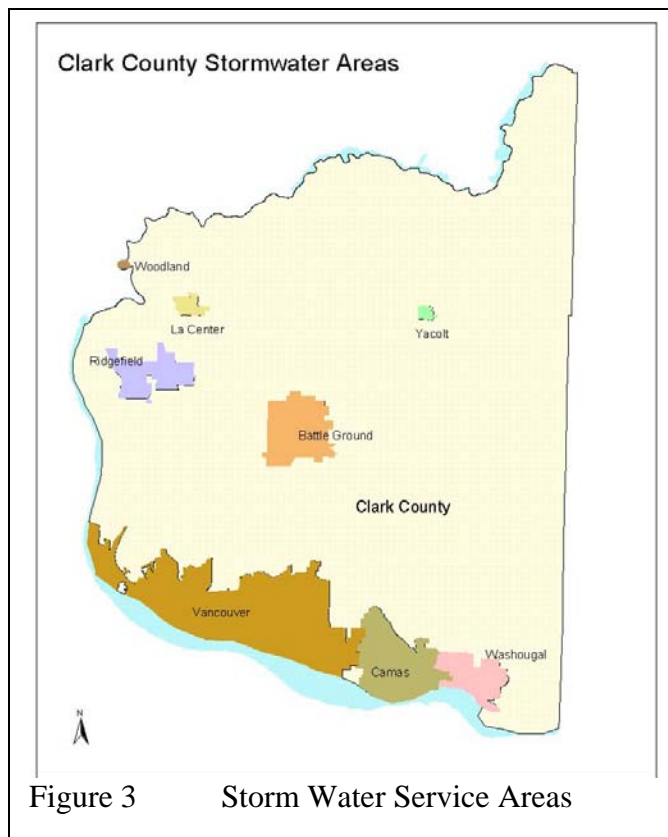
Storm Water Service Areas

Each jurisdiction is responsible for planning for storm water facilities within its jurisdiction, as shown in the figure to the right (Figure 3).

Source Documents

The following capital facilities documents were reviewed for this analysis:

1. City of Battle Ground
Stormwater Management Plan
Interim Draft Report, MAY
2004
2. City of Camas Comprehensive
Plan, December 2003
3. City of La Center Stormwater
Management Plan
4. The Ridgefield Urban Area
Comprehensive Plan, 1/26/95
5. Draft Vancouver
Comprehensive Plan, 2003-
2023
6. Yacolt Comprehensive Growth Management Plan, 9/5/03



Analysis

The county and its cities will continue to address stormwater in a number of different ways, based on the following:

1. *An inventory of existing publicly-owned facilities with location and capacities.*

For **Clark County**, the Public Works Department has recently completed an inventory of publicly-owned stormwater facilities. They are also working on an inventory of privately-owned facilities that is not quite done. This information is available in the county's geographic information system (GIS).

The **City of Camas** has inventoried its storm water facilities in the form of two maps – one for the city storm drainage system and one for the Fisher Basin utility area.

The **City of Vancouver** has an inventory of public facilities.

The **City of Washougal** did not address storm water in their capital facilities plan.

The **Town of Yacolt** did not include a list of publicly owned storm water facilities, but does briefly mention existing facilities.

The **City of Ridgefield** is not planning to update their existing 1995 capital facilities plan for storm water. The 1995 plan contains an inventory of existing public facilities, but does not include facilities in the proposed expansion areas.

The **City of La Center** recently completed a stormwater management that includes an inventory of existing structures and pipes.

The **City of Battle Ground's** SWMP includes an existing drainage system inventory

2. *A forecast of future needs that is consistent with the land use plan.*

The idea of addressing stormwater on a watershed basis is in its infancy in **Clark County**. As such, a complete forecast of public needs for storm water collection, conveyance and treatment that would be consistent with the proposed land use plan has not been prepared.

The **City of Camas** has prepared a forecast of the need for storm water facilities based on the planned land use and population projections for the 20-year planning period.

The **City of Vancouver** has two long-range basin plans prepared – the Columbia Slope Plan completed in the mid-1990's when the storm water utility was established and the Burnt Bridge Creek Watershed Plan (formerly a joint county/city work effort). Most of the effort is going into the Burnt Bridge Creek Watershed Plan in the next six years, although there are other programs listed in the city's surface water management capital improvement program.

The **City of Washougal** did not address storm water in their capital facilities plan.

The **Town of Yacolt** did not forecast needs, but then it's not expanding its urban growth boundary.

The **City of Ridgefield** is not planning to update their existing 1995 capital facilities plan for storm water. The existing plan has projected six-year drainage facilities.

The **City of La Center's** SWMP includes a list of recommended improvements and associated cost estimates.

The **City of Battle Ground** identifies existing drainage problem areas.

3. *A listing of proposed expanded or new capital facilities indicating their locations. The listing is interpreted to include all of those improvements necessary to meet the forecast (and thereby consistent with the land use plan).*

Clark County plans, designs and constructs storm water drainage and water quality facilities through a capital program funded by the county's clean water fee. Several parties have challenged the county's clean water fee as to its legality. If the fee survives the legal challenges, the county could mount a more aggressive capital facilities plan by either bonding the fee revenue or by obtaining low-interest loans. Given the questions about this major funding source, the county has not prepared a 20-year listing of storm water capital projects.

The **City of Camas** is in the process of examining the establishment of an overall storm water utility to address the forecast needs. As such, the city has not completed a 20-year list of projects.

The **City of Vancouver** includes stormwater projects in their six-year list of capital facilities projects.

The **City of Washougal** did not address storm water in their capital facilities plan.

The **Town of Yacolt** includes stormwater projects in their six-year list of capital facilities projects.

The **City of Ridgefield** is not planning to update their existing 1995 capital facilities plan for storm water, which included a six-year project list.

The **City of La Center's** SWMP includes a list of recommended improvements.

The **City of Battle Ground's** SWMP contains a list of new capital facilities needed to address stormwater problems.

4. *A six-year financial plan for funding those future capital facilities including the source of public funding. That plan is interpreted to apply to those facilities identified as being needed within the first six years of the 20-year land use plan.*

To date, **Clark County** Public Works has been using Clean Water Act funds to upgrade existing facilities and to purchase property for new facilities. The following summarizes the county's efforts with regard to stormwater:

- building and retrofitting capital improvements to collect and treat stormwater;
- maintaining the county's existing stormwater system to remove contaminants before they enter local waters;
- educating students and citizens to promote watershed stewardship (bolster water quality protection);
- enforcing laws as necessary to protect water for swimming, fishing, drinking, and other uses;
- monitoring to determine surface water quality and measure the effectiveness of Clean Water Program efforts, and
- coordinating with a citizen advisory commission (Clean Water Commission), that is tasked to provide advice to the Board of County Commissioners, regarding Clean Water Program performance.

The following table provides a summary of Clark County's 6-year storm water capital program.

Six-year Storm Water Drainage and Water Quality Capital Facilities Plan	
Expenditures	
<i>Project Category</i>	<i>Expected Expenditure</i>
On-Going Capital Programs ¹	\$2,400,000
Capital Projects	\$6,200,000
Joint WSDOT Projects ²	\$600,000
Support Expenditures ³	\$600,000
<i>Total Expenditures</i>	<i>\$9,300,000</i>
Revenues	
<i>Revenue Source</i>	<i>Expected Revenue</i>
Clean Water Fee Available for Capital Projects	\$9,300,000
<i>Total Revenue</i>	<i>\$9,300,000</i>
Notes:	
¹ Costs are estimated from the first year of on-going programs.	
² Storm water project with Washington State Department of Transportation that benefits county and state.	
³ Non-capital costs necessary to development and implement capital projects.	

Table 1 is summarized from the six-year storm water drainage and water quality capital facilities plan and rounded to reflect the degree of variability that may exist in the estimates provided.

The six-year capital facilities plan for storm water and water quality has a greater potential for variation and adjustment over the period covered (2004-2009) because:

- The program is relatively new in the county.
- The previously stated risk to the stability of funding.
- The program is primarily-driven by the need to meet the requirements of the county's National Pollution Discharge Elimination System (NPDES) permit and as those requirements change the program must adjust to meet them.
- The nature of the drainage basins vary and the technical knowledge about the drainage basins improves as basin planning and engineering progresses with each year's projects.
- The latter years of this particular six-year storm water and water quality CFP has not received formal review by the county's Clean Water Commission.

The proposed projects total \$9.3 million, with the cost coming from the Clean Water fees that are available for capital projects. This is the only list of stormwater projects that exists. Revenue sources for county projects beyond 2009 at this point are unknown.

The **City of Camas** CFP contains a list of stormwater projects by year through 2009 (six-year) and two lists of projects, each covering seven years, for a total of 20 years of stormwater projects. Project costs through 2009 total \$22,226,000, of which \$2,715,000 is stormwater fund-related. Project costs through 2023 are an additional \$22,803,000, of which \$4,900,000 is stormwater fund-related. The CFP states that a special fund created for management and operations of all city storm and surface water facilities will be used to pay for improvements.

The **City of Vancouver's** surface water management capital improvement program lists seven projects/acquisitions for 2003-08 at a cost of \$18,577,000. Besides these specific capital projects, the city also relies on its shoreline master program, the wetland protection ordinance, the floodplain ordinance, stormwater and groundwater protections, tree preservation ordinance, SEPA, erosion control regulations and water resources protection ordinance to assist in meeting its water quantity and quality standards.

The **Town of Yacolt** includes in its comprehensive plan a six-year list of capital facilities projects that, in turn, includes stormwater and drainage projects. Approximately 30 projects (combined street and stormwater) are listed, totaling \$4,633,000, coming mostly from the street fund and grant funds.

The **City of Washougal** did not include storm water in their capital facilities plan.

The **City of Ridgefield** did not update its storm water capital facilities plan as part of this plan update. The 1995 plan did not include specific projects, but the 1994-2012 estimate for stormwater facilities was \$5,614,000, to be financed mostly by system development charges and developer-financed improvements.

The **City of La Center** SWMP states that any projects would be financed by the general fund.

The **City of Battle Ground's** SWMP includes a 6 year list of projects totaling \$2.42 million and a 20 year list totaling \$7.32 million..

Other Issues

At this point there are a number of factors that make detailed planning for stormwater problematic, beyond the fact that the county will need to address the issue in more of a county-wide fashion. Currently, on the private side, all development is required to address stormwater on-site, and on the public side, road and other construction projects are required to address stormwater runoff. It is the cumulative impact of development that will need to be addressed.

There has been much work done to develop drainage plans for county streams, but these plans address only water quantity. The county is now being forced to pay closer attention to water quality issues, and these two issues require different strategies for resolution. The county's stormwater ordinance will have to be updated once the NPDES permit is

issued, which is expected to be at the end of 2004. The decision will have to be made on whether to continue to use the 1992 Puget Sound manual or adopt the 1999 Western Washington manual. There are also ESA requirements that may dictate specific courses of action.

Schools

Summary

Clark County adopted on November 4, 2003 (with an effective date of December 31, 2003) the Battle Ground, Camas, Evergreen, La Center, Ridgefield, Vancouver, and Washougal School Districts' (together the "Consortium of Clark County School Districts") six-year Capital Facilities Plans for 2003-2009, and the Green Mountain School District's six-year Capital Facilities Plan for the years of 2003 through 2009. These adopted Capital Facilities Plans (CFP) relate to the adopted 1995 Growth Management Comprehensive Plan Map. Therefore, each school district submitted supplemental data to their respective six-year CFPs based on the 2004-2010 time period and the proposed Board of Commissioner's Recommended Comprehensive Plan Map (Recommended Plan) dated January 14, 2004. This supplemental data was based on a projected new student population derived from the Recommended Plan to help identify any potential capacity and funding problems.

In addition to the six-year CFP supplemental information, each school district in the Consortium and the Green Mountain School District submitted a 20 year student projection and the estimated number of new schools needed to serve the projected new students. Both the number of students and schools projected in these estimates are based on a number of assumptions. Specifically, it is assumed that growth will occur to the maximum extent allowable under the current land use planning scheme in the next twenty years, that growth will occur at a consistent rate, and that the number of students generated from new development will remain consistent with current student generation rates. These estimates are not based on enrollment of students from existing housing, nor do the enrollment projections and facility needs take into account cohort survival, grade progression, or local housing trends. In addition, the projections assume no changes to the existing school district boundaries.

The Consortium school districts used the following methodology to derive the forecasted 20 year needs estimate and supplemental information to the adopted 2003-2009 six-year CFPs. The student population for the 20 year planning horizon was determined by multiplying each districts' student generation rate (the average number of elementary, middle and high school students that reside in single family and multi-family dwelling units in each district) by the Clark County forecast of the potential number of single family and multi-family households in each school district. An estimated 'additional students' (students over and above the existing student population) is listed by elementary, middle, and high schools. An estimate for new capital facilities and their costs is listed based on this number of 'additional students'. These estimates do not include additional school capacity that may be achieved through expansion of existing facilities, the addition of portables at existing sites, or the need to modernize aging facilities.

The six-year (2004 -2010) capital facilities supplemental information provided by members of the Consortium used a similar methodology in estimating the number of additional students that could be generated in the next six years. The number of residential units that could be built in the next six years was estimated by dividing the 20-year total of single family and multifamily households by 3. This number was then

multiplied by each district's student generation rate. It should be noted that only the estimated need for additional schools was determined. Additional school capacity achieved through expansion of existing facilities, adding portables, or modernizing aging facilities is not included. (See each district's 2003-2009 for a complete listing of planned projects.)

The funding of school facilities is typically secured through a number of sources including voter-approved bonds, state matching funds, and impact fees. Bonds are used and are the principal source of revenue to fund site acquisition, construction of new schools, and other capital improvement projects. State matching funds can be applied to school construction projects only. School impact fees supplement the traditional funding sources for construction and expansion of school facilities needed to accommodate new development.

For more detailed information refer to the *“Updated Supplemental Capital Facility Plan report for the School Consortium covering 2004-2010 time period and the 20 year planning period based on the January 14, 2004 Board of Commissioners Recommended Comprehensive Plan Map”*, located in the Resource Document.

School District Service Areas

See Figure 4 shown on the right.

Source Documents

The following capital facilities documents were reviewed for this analysis:

1. Adopted 2003-2009 School District Capital Facilities Plans
2. Updated Supplemental Capital Facilities Plan report for the School Consortium covering 2004-2010 time period and the 20 year planning horizon based on the January 14, 2004 Board of Commissioners Recommended Comprehensive Plan Map.
3. Green Mountain School District six-year CFP 2004-2010 dated May 24, 2004.

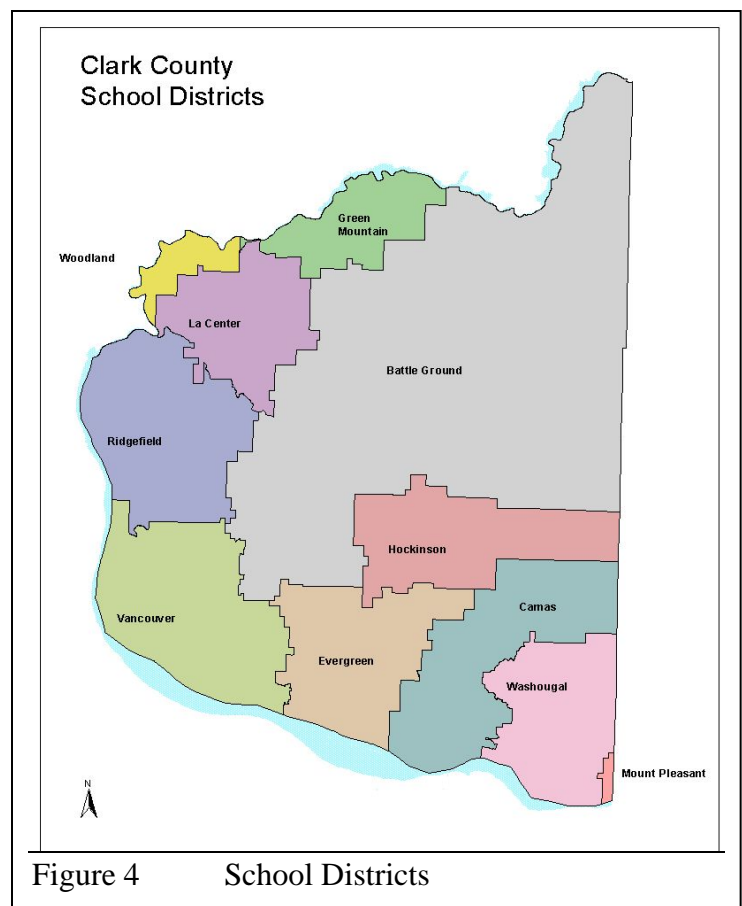


Figure 4 School Districts

Analysis

The following questions respond to requirements needed to be consistent with GMA Capital Facilities Programs:

1. *Does the CFP contain an inventory of existing publicly owned facilities, with location and capacities?*

Battle Ground School District No. 119

Inventory of Current Facilities and Current Capacity.

Number of Schools			Enrollment Fall 2003			2003 Capacity*		
Elem	Middle	High	Elem	Middle	High	Elem	Middle	High**
6	5	5	4,149	3,805	4,451	3,649	2,591	4,302

* Capacity does not include capacity that is attributed to portables.

** Includes one alternative high school, one high school magnet, and one K-12 alternative program (actual student enrollments are counted in their respective categories).

Camas School District No. 117

Inventory of Current Facilities and Current Capacity.

Number of Schools			Enrollment Fall 2003			2003 Capacity*		
Elem	Middle	High	Elem	Middle	High	Elem	Middle	High
5	1	1	2,525	762	1,420	2,325	850	1,600

* Capacity does not include capacity that is attributed to portables.

Evergreen School District No. 114

Inventory of Current Facilities and Current Capacity

Number of Schools			Enrollment Fall 2003			2003 Capacity*		
Elem	Middle	High	Elem	Middle	High	Elem	Middle	High
20	6	4	11,390	5,571	7,378	11,204	4,996	3,901

* Capacity does not include capacity that is attributed to portables.

Hockinson School District

Inventory of Current Facilities and Current Capacity.

Number of Schools			Enrollment Fall 2003			2003 Capacity*		
Elem	Middle	High	Elem	Middle	High	Elem	Middle	High
1	1	1	931	551	263	935	700	650

* Capacity does not include capacity that is attributed to portables.

La Center School District No. 101

Inventory of Current Facilities and Current Capacity

Number of Schools			Enrollment Fall 2003			2003 Capacity*		
Elem	Middle	High	Elem	Middle	High	Elem	Middle	High
1	1	1	553	322	463	415	264	352

* Capacity does not include capacity that is attributed to portables.

Ridgefield School District No. 122

Inventory of Current Facilities and Current Capacity

Number of Schools			Enrollment Fall 2003			2003 Capacity*		
Elem	Middle	High	Elem	Middle	High	Elem	Middle	High
2	1	1	883	323	626	850	297	487

* Capacity does not include capacity that is attributed to portables.

Vancouver School District No. 37

Inventory of Current Facilities and Current Capacity

Number of Schools**			Enrollment Fall 2003			2003 Capacity*		
Elem	Middle	High	Elem	Middle	High	Elem	Middle	High
21	6	6	9,894	5,098	6,847	9,453	4,475	6,950

* Capacity does not include capacity that is attributed to portables.

** Includes 5 standard middle schools, 5 standard high schools, Fir Grove Children's Center (K-12 special education), and Vancouver School of Arts and Academics (6-12 magnet school). Actual student enrollments are counted in their respective categories.

Note: approximately 1,250 students are currently housed in portable classrooms.

Washougal School District No. 112-6

Inventory of Current Facilities and Current Capacity.

Number of Schools			Enrollment Fall 2003			2003 Capacity*		
Elem	Middle	High	Elem	Middle	High	Elem	Middle	High
3	2	2	1,167	665	924	1,341	741	1,048

* Capacity does not include capacity that is attributed to portables.

2. A forecast of future needs is provided that is consistent with the land use plan that the board identified on January 14, 2004.

In the case of schools question 2 is the same as question 3. Please see question 3.

3. A listing is provided of proposed expansions to capital facilities or new capital facilities that are capable of providing for the needs identified in the forecast. This should be a “20-year listing” since the land use plan covers a 20 year period.

**Estimated Schools by Individual School District under the
BOCC’s January 14, 2004 Recommendation for the Twenty-Year Planning Horizon
(Not including current needs)**

	Estimated Number of New Schools*	Estimated Construction Cost for Permanent Facilities in Twenty Years** (in millions)	Estimated Land Cost in Twenty Years*** (in millions)		Estimated Number of New Schools*	Estimated Construction Cost for Permanent Facilities in Twenty Years** (in millions)	Estimated Land Cost in Twenty Years*** (in millions)
Battle Ground****				Camas			
Elem.	7 – 8	134.6 – 153.8	7.9 – 9	Elem.	3	82.5	6.7
Mid.	7 – 8	155.3 – 177.5	7.9 – 9	Mid.	0		
High	1 – 2	119.3 – 139.3	5 – 10	High	0		
Total	15 – 18	\$409.2 – \$470.6	\$20.8 – \$28	Total	3	\$82.5	\$6.7
Evergreen				Hockinson			
Elem.	3	69.2	8.7	Elem.	0		
Mid.	1	48.8	5.8	Mid.	0		
High	0			High	0		
Total	4	\$118.0	\$14.5	Total	0		
La Center				Ridgefield			
Elem.	0	0		Elem.	3	51.9	2.4
Mid.	0	0		Mid.	0		
High	0	0		High	0		
Total	0	0		Total	3	\$51.9	\$2.4
Vancouver*****				Washougal			
Elem.	4	92.3	7.6	Elem.	2	38	2.5
Mid.	1	53.2	3.8	Mid.	1	25.9	2.5
High	0-1	94.6	5.7	High	0		
Total	5-6	\$145.5 – 240.1	\$11.4 – 17.1	Total	3	\$63.9	\$5.0

*Based on established standards of service. Please refer to the school districts’ adopted 2003 CFPs for additional information.

**Construction cost calculations are based on the average cost to build an elementary, middle or high school today, with the application of an inflationary factor over twenty years.

***Land costs are based on an average cost to purchase property in each District today, with the application of an inflationary factor over twenty years.

****Based on the potential range of new students in the Battle Ground School District (Refer to resource document - Tables 1 & 2).

*****In June 2002, E.D. Hovee & Company (a consultant hired by the Vancouver School District) provided a baseline and high growth enrollment forecast out to the year 2025 (attached as Appendix B to the Vancouver School District’s 2003-2009 Capital Facilities Plan). E.D. Hovee’s forecast is based on estimates and assumptions about future economic and demographic trends under the existing land use designations in the District. Facilities needs reported here are based on E.D. Hovee’s forecast, in addition to the forecast drawn from methodology for projecting student generation in the recommended expansion area, The Vancouver School District has relied on E.D. Hovee’s forecast in its planning decisions to date.

Battle Ground School District No.119

Based on the potential range of additional students that could be generated by the effects of the Recommended Plan in the Battle Ground School District, the District may require 15 to 18 new schools within the 20-year planning horizon. The estimated need for 15 to 18 new schools is in addition to the needs estimated in the adopted six year (2003-2009) Capital Facilities Plan, which includes 3 new schools (one K-4 school, one 5-8 school, and one K-8 school).

As of the fall of 2003, the District is over capacity at all permanent facilities, with the exception of two elementary schools. With the proposed expansion of the Battle Ground and Vancouver urban growth areas, and the continued development in the rural areas of the District, the District can expect approximately 3,214 to 3,758 new students by the year 2010.

Because of the quantity of estimated new students, the predicted number of new facilities required based on the BOCC recommended January 2004 map, and previous election history, it is highly unlikely that the required bond measures to fund the large number of needed facilities to house the estimated new students within the next 6-years would pass voter approval. If the needed bonds fail, and should student generation occur as predicted, the District would need to consider changing service levels and adding portables.

Camas School District No. 117

Based on the potential number of new students that could be generated in the Camas School District, the District may require three new schools within the 20-year planning horizon. The three new schools are in addition to the needs estimated in the adopted six-year (2003-2009) Capital Facilities Plan, which includes a new elementary school. Furthermore the six-year supplemental information points out that the District is currently over capacity in its elementary schools and may be close to capacity at the new high school by 2006. Therefore, the District is considering both construction of a new elementary school and expansion of the new Camas High School by the year 2010. These needs will be addressed in the 2005 update to the six-year Capital Facilities Plan.

Evergreen School District No 114

Based on the potential number of new students that could be generated in the Evergreen School District the District may require four new schools within the 20-year planning horizon, in addition to the needs estimated in the adopted six year (2003-2009) Capital Facilities Plan. The 2003-2009 CFP identifies the need for three new schools (a new elementary school, middle school, and high school). The adopted 2003-2009 CFP will adequately provide for the estimated 1,422 additional students that could be generated from expansion of the urban growth areas.

Hockinson School District No. 98

Based on the potential number of new students that could be generated in the Hockinson School District, no new schools are expected to be required to serve additional students in the 20 year planning horizon. The District currently has

capacity in all of its schools. The 2003-2009 CFP proposes to expand the primary school and middle school to add capacity, which will help house the 362 new students that could be generated from new residential development.

La Center School District No. 101

Based on the potential number of new students that could be generated by development in the La Center School District, no new schools are expected to be required to serve additional students in the 20 year planning horizon. The 2003-2009 CFP proposed to expand an elementary school, middle school, and K-8 Multipurpose Building. These modifications will help house the 217 new students that could be generated from new residential development in the District. In addition, the six-year CFP supplemental information identifies the need for a new elementary school towards the end of the next six-year CFP cycle (2005-2011). Specific plans for this facility will be identified in the 2005-2011 CFP.

Ridgefield School District No. 122

Due to the potential number of new students that could be generated in the Ridgefield School District, the District may require three new schools within the 20-year planning horizon. These three new schools are in addition to the needs estimated in the adopted six year (2003-2009) Capital Facilities Plan, which includes one new high school and relocation of the middle school. The current 2003-2009 CFP is not adequate to house the projected 958 additional students that could be generated in the District. The submitted six year supplemental information identifies the possibility of two new schools (the high school and an elementary school) as well as the relocation of the middle school. The District's 2005-2011 CFP will identify the District's specific plans.

Vancouver School District No. 37

Based on the potential number of new students that could be generated from additional development in the Vancouver School District, the District may require five to six new schools in the 20-year planning horizon. In addition, the adopted six year (2003-2009) Capital Facility Plan identifies the need for 3 new schools (2 elementary schools and 1 middle school), as well as plans to replace and expand 8 elementary schools. A 2001 voter approved bond has funded all the facilities identified in the 2003-2009 CFP except for the 2 new elementary schools, which would require a new bond issue.

Washougal School District No. 112-6

Based on the potential number of additional students that could be generated from residential development in the Washougal School District, the District may require three new schools within the 20-year planning horizon. These 3 new schools are in addition to the needs estimated in the adopted six year (2003-2009) Capital Facilities Plan, which includes one new elementary school. In addition, the submitted six year supplemental information identifies the potential need to expand an existing middle school. The District's 2005-2011 CFP will identify the District's specific plans.

For all Consortium schools - Refer to the *Updated Supplemental Capital Facilities Plan report for the School Consortium covering 2004-2010 time period and the 20 year planning horizon based on the January 14, 2004 Board of Commissioners Recommended Comprehensive Plan Map*

Green Mountain School District (not a member of the School Consortium)

The District's educational facilities consist of one K-8 school which provides capacity for 100 students, not including portables. The current facilities are beyond capacity, housing 125 students. It is projected that the District will need to house 140 students by the year 2010. To house the projected increase and to maintain a 22 student per classroom standard, the six-year needs forecast (2004-2010) is planned to include four additional classrooms, a library, science/art lab and restrooms.

Based on current information in the Clark County Comprehensive Plan update, the District believes that the projects proposed in this plan will accommodate growth in the District for the next 20 years unless significant changes occur in the future such as the addition of an urban area within the District boundaries.

Refer to "*Green Mountain School District six-year CFP 2004-2010*" dated May 24, 2004 located within the Resource Document.

4. *A six-year financial plan is developed for funding those expansions or new capital facilities that are expected to be needed within the first six-years of the plan. That financial plan must be fully balanced. The identified needs must have known funding sources (even if those funding sources may require voter approval).*

A six year (2003-2009) capital facilities plan is adopted for each school district. Under question 3 supplemental information for a 2004-2010 projected 6-year is discussed as well as the 20 year needs forecast. For a complete report refer to the *Updated Supplemental Capital Facilities Plan report for the School Consortium* and the *Green Mountain School District six-year CFP 2004-2010* found within the Resource Document.

Parks/Recreational Facilities

Parks and recreational facilities for urban development are typically provided by the cities associated with the urban areas. As with most other capital facilities, the notable exception to that pattern of capital facility provision exists for the Vancouver Urban Area. Most jurisdictions have identified parks and recreational facilities to serve their entire urban area.

Parks and Recreational Facility Service Areas

In the Vancouver Urban area, urban parks and recreational facilities are the responsibility of a joint city-county agency managed by the City of Vancouver (under contract to Clark County). Clark-Vancouver Parks also provides planning and programming for regional parks and recreational facilities. For other urban areas, the associated city provides urban parks and recreational facilities.

Source Documents

The following capital facilities documents were reviewed for this analysis:

1. City of Vancouver, Capital Facilities Plan 2004
2. Park & Recreation (County) Capital Facilities Project List (2003-2008) Revised (3/19/04) to add UGB Expansion Area Projects
3. City of Camas, Parks Capital Facilities Plan, 2004
4. City of Battle Ground, Comprehensive Parks, Recreation & Open Space Plan, 2004
5. City of Washougal, Parks Capital Facilities Plan, 2004
6. City of La Center, Parks Capital Facilities Plan, 2004
7. City of Ridgefield, Parks Capital Facilities Plan, 2004
8. Town of Yacolt, Capital Facilities Plan, 2004

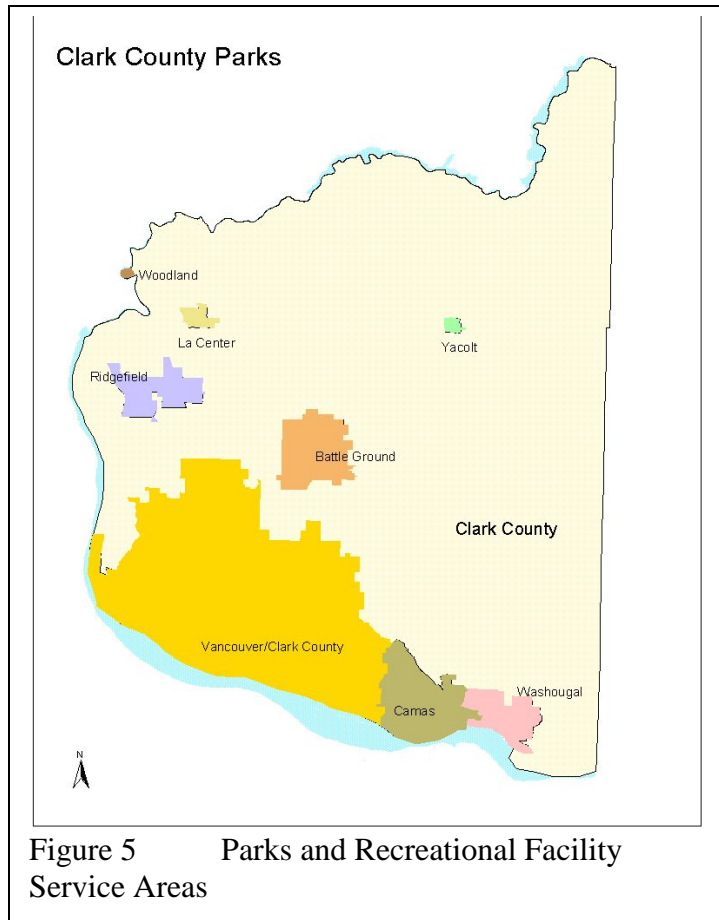


Figure 5 Parks and Recreational Facility Service Areas

Provision of Parks in the Unincorporated Urban Area

The provision of parks in the unincorporated portion of the Vancouver Urban Area has been a challenge for Clark County. The nature of the challenge is not in the acquisition of land for new parks or the development of that “raw” parkland into what citizens typically associate with the term “park.” The primary source of funding for parkland acquisition and development has been impact fees. Those fees carry a legal requirement to spend them within six years of receipt on eligible projects or return them to property owners that paid the fee. The county, generally, has been able to meet that legal requirement and the additional one to meet the public share of the impact fee program. The challenge lies in what happens after an urban park is developed; it requires regular maintenance. The county does not have the financial capability to meet the costs of that on-going maintenance. For that reason, much of the undeveloped urban parkland remains undeveloped. Recently, the county has entered into maintenance agreements for specific urban parks with local neighborhood groups in the hope that direct billing of citizens for maintenance of a specific local park would clearly demonstrate the value of having developed and maintained urban parks in the unincorporated area.

Analysis

The following questions respond to requirements needed to be consistent with GMA Capital Facilities Programs:

- 1. Does the CFP contain an inventory of existing publicly owned facilities, with location and capacities?*

The **City of Camas** parks capital facilities plan contains an inventory of existing public parks and recreational facilities within the city.

The **City of Battle Ground** Comprehensive Parks, Recreation & Open Space Plan contains an inventory of existing public parks and recreational facilities within the city and potential areas within the urban growth area.

Clark-Vancouver Parks contains an inventory of the existing urban parks within the Vancouver Urban Area (since this agency provides park and recreational facilities to both the City of Vancouver and the unincorporated area).

The **City of Washougal** parks capital facilities plan contains an inventory of existing park and recreational facilities within the city.

The **Town of Yacolt** parks capital facilities plan contains an inventory of existing park and recreational facilities within its urban area.

The **City of Ridgefield** parks capital facilities plan contains an inventory of existing park and recreational facilities within the city.

The **City of La Center** parks capital facilities plan contains an inventory of existing park and recreational facilities within the city.

- 2. A forecast of future needs is provided that is consistent with the land use plan that the Board identified on January 14, 2004.*

The **City of Camas** parks capital facilities plan contains a forecast of future needs for its urban area as identified on January 14, 2004.

Clark-Vancouver Parks contains a forecast of future needs for the expanded Vancouver Urban Area.

The **City of Washougal** parks capital facilities plan contains a forecast of future needs consistent with the January 14, 2004 urban area. The city did not request additional urban area and therefore the forecasted population didn't change.

The **Town of Yacolt** parks capital facilities plan contains a forecast of future needs for its urban area. The city did not request additional urban area and was not allocated additional urban area with the January 14, 2004 plan map.

The **City of Ridgefield** parks capital facilities plan contains a forecast of future needs for its urban area as identified on January 14, 2004.

The **City of La Center** parks capital facilities plan contains a forecast of future needs for its urban area as identified on January 14, 2004.

The **City of Battle Ground** parks capital facilities plan contains a forecast of future needs for its urban growth area as identified on January 14, 2004.

3. *A listing is provided of proposed expansions to capital facilities or new capital facilities that are capable of providing for the needs identified in the forecast. This should be a "20-year listing" since the land use plan covers a 20-year period.*

The **City of Camas** parks capital facilities plan contains a listing of expansions or new parks and recreational facilities to accommodate the needs identified in the forecast.

Clark-Vancouver Parks contains a listing of needs for the expanded Vancouver Urban Area. That 20-year list that was submitted before the current plan update and has not changed. It is expected that a revision to that list will be proposed to include the additional park acquisitions identified on the 6-year program.

The **City of Washougal** parks capital facilities plan contains a listing of needs for its urban area over the next 20-years

The **Town of Yacolt** parks capital facilities plan contains a listing of needs to accommodate 20-years of urban growth within its urban area.

The **City of Ridgefield** parks capital facilities plan contains a listing of needs to accommodate 20-years of urban growth within its urban area.

The **City of La Center** parks capital facilities plan contains a listing of needs to accommodate 20-years of urban growth within its urban area.

The **City of Battle Ground** parks capital facilities plan contains a listing of expansions or new parks and recreational facilities to accommodate the needs identified in the forecast.

4. *A 6-year financial plan is developed for funding those expansions or new capital facilities that are expected to be needed within the first 6-years of the plan. That financial plan must be fully balanced. The identified needs must have known funding sources (even if those funding sources may require voter approval).*

For lists of specific park projects, refer to the source documents listed above. These are on file with the respective jurisdictions as well as at Clark County Long range Planning.

The **City of Camas** parks capital facilities plan contains a 6-year program of park improvement and other projects. The program identifies funding from impact fees, real estate excise taxes, the city's general fund, bonding and private partnership funding as being sufficient to support the program.

Clark-Vancouver Parks provided an amended 6-year program which assumes that adjacent park impact fee districts are extended into the urban area expansions (an assumption consistent with applicable county code). The program amendment added acquisition of 10 park sites in the expansion areas using the acquisition parks impact fee as the primary funding source. These acquisitions are scheduled in the 6-year program for the last two years; this is likely a reflection of the time needed for the impact fee districts to generate the funding for acquisition assuming that development begins within the expansion areas shortly after adoption of the plan.

This short-term demand for parkland acquisition is directly related to the allocation of population to these expanded areas of the unincorporated portion of the Vancouver Urban Area. If this population was allocated to another urban area (where annexation was required prior to urban development, this need would be addressed by a different jurisdiction – either by providing a similar number of parks or by adjusting the parks level of service).

The **City of Washougal** parks capital facilities plan contains a 6-year program of parks projects. The plan identifies funding from impact fees, real estate excise taxes, grants, and city's street fund as being sufficient to the program.

The **Town of Yacolt** parks capital facilities plan contains a 6-year program of parks projects. . The plan identifies funding from, real estate excise taxes, grants, and city's street fund as being sufficient to the program.

The **City of Ridgefield** parks capital facilities plan contains a 6-year program of park improvement and other projects. The program identifies funding from impact fees, real estate excise taxes, the city's general fund, bonding and private partnership funding as being sufficient to support the program.

The **City of La Center** parks capital facilities plan contains a 6-year program of park improvement and other projects. The program identifies funding from impact fees, real estate excise taxes, the city's general fund, bonding and private partnership funding as being sufficient to support the program.

The **City of Battle Ground** parks capital facilities plan contains a 6-year and 20-year program of park improvement and other projects. The program identifies funding

from impact fees, real estate excise taxes, the city's general fund, bonding and private partnership funding as being sufficient to support the program.

Levels of Service

Parks and Recreational facilities are one of the quantifiable services provided by a jurisdiction. National and jurisdictional standards have been set for the provision of X acres of different types of parks for every 1000 citizens. Many area jurisdictions have disclosed the need for parks based upon projected population increases, and have provided reference to the funding types that will pay for them. However, little work has been done by some jurisdictions to forecast the long-term viability of these funding strategies.

Battle Ground has a standard of 5 acres of park land for every 1000 residents. The existing LOS information is difficult to analyze since it includes wetlands and other unbuildable areas in their total acres of parks. They have not projected a future LOS.

Camas has a policy goal of providing neighborhood parks within a one-half mile radius of most residents. The neighborhood parks present LOS is: 3.5 acres/1,000 population, which exceeds their standard of 2.5 acres/1,000 population. While this standard is less than the customary 5 acres/1,000 population, the City of Camas also combines mini-parks, community parks, regional parks, and a very high number of open space acreage to provide parks service.

La Center has calculated existing and proposed LOS standards for Community Parks, Neighborhood Parks and Trails. See below:

	Current LOS	Proposed LOS
Community Parks	5 ac/ 1000	5 ac/ 1000
Neighborhood Parks	2 ac/ 1000	1.5 ac/ 1000
Trails	.5 ac/ 1000	.5 ac/ 1000
Total	7.5 ac/ 1000	7 ac/ 1000

Ridgefield has calculated existing and proposed LOS standards for Community Parks, Neighborhood Parks and Trails. See below:

	Current LOS	Proposed LOS
Community Parks	5 ac/ 1000	5 ac/ 1000
Neighborhood Parks	2 ac/ 1000	1.5 ac/ 1000
Trails	.5 ac/ 1000	.5 ac/ 1000
Total	7.5 ac/ 1000	7ac/ 1000

Vancouver (City of and County) Parks and Recreation has provided existing acres and projected need. The current LOS, per 1000 residents, for parks is 7acres for Regional

facilities and 8.1 acres for urban parks. The LOS is expected to increased to 10 ac for regional parks and drop to 6 acres for urban parks. Vancouver, as discussed above, has issues related to the development of parks. The LOS numbers provided herein refer only to acquisition of land.

Washougal has the same current and future LOS standard for parks; 5ac/ 1000 residents.

Yacolt did not quantify their LOS for parks. The acreage standard will drop as the City intends to improve its facilities but create no new parks. However, in discussions with citizenry, there has not been a significant need identified for new parks. Yacolt is near to County parks such as Moulton Falls, and is surrounded with open, natural spaces.

Police

Summary

Based on a review of the CFP's of the various cities, most Law Enforcement Capital Facilities needs for the next 20 years have been, or are in the process of being met with funded projects underway. The major exceptions for the 6 year CFP are a large jail expansion, replacing a county Central Precinct, a marine patrol facility and housing for a Jail/Records Management System.

Law Enforcement Service Areas

Each city in Clark County provides police protection for its citizens. Yacolt provides police services through a contract with the Sheriff. Clark County provides police protection for the citizens in unincorporated Clark County. In addition, all jurisdictions have interlocal mutual assistance agreements.

Each jurisdiction provides police "station" facilities. Several jurisdictions have recently added additional stations, precincts or expansions to existing facilities to accommodate their needs over the next twenty years. Some jurisdictions have identified additional facilities, such as a \$1.5 Million expansion/remodel of a Camas Police Station after the year 2017. Ridgefield indicates about \$0.9 Million in facility expansions will be necessary within the next years to house 10 police personnel.

All of the cities rely on Clark County for all jail facilities, both short and long term.

The Washington State Patrol has police jurisdiction on state routes in the county, is largely responsible for state facilities, and provides backup for the Clark County Sheriff's Department and local jurisdictions.

Source Documents

The following capital facilities documents were reviewed for this analysis:

1. Clark County Sheriff's CFP documents, summarized below.
2. Camas Comprehensive Plan, Capital Facilities Plan 2004-2009 & 2010-2023, page 13, police station expansion beyond 2017 (1.5 Million dollars).

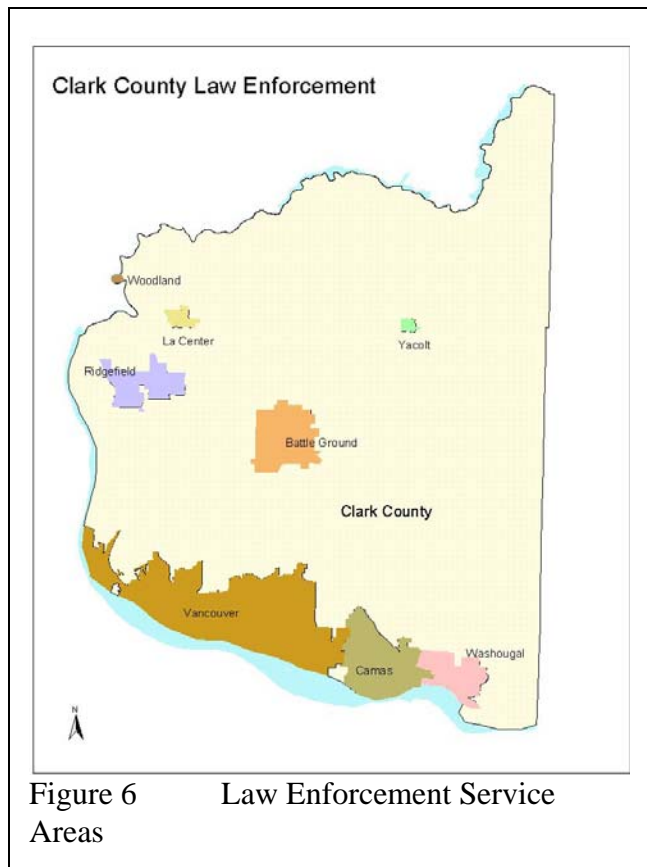


Figure 6 Law Enforcement Service Areas

3. Yacolt Comprehensive Plan (April 16, 2004), Page 49. No additional police facilities planned.
4. Washougal Capital Facilities Plans, draft (January 21, 2004). No additional police facilities planned.
5. City of Vancouver Comprehensive Plan 2003-2023, draft, page 5-49. Identifies 19.5 Million dollars in general fund expenditures through the year 2008 for law enforcement related capital facilities.
6. Ridgefield CFP, Police element, draft, June 2004. Identifies 0.9 Million dollars in expanded police facilities (12,900 sq. feet of additional office space) by the year 2010. \$380,000 in expanded facilities is expected by 2023. Funding for 6 year and 20 year improvements are expected from General Fund, Criminal Justice Funds and occasional grants-in-aid.
7. The remaining jurisdictions have not reported any short or long term police capital facilities.

Analysis

The following questions respond to requirements needed to be consistent with GMA Capital Facilities Programs.

5. *Does the CFP contain an inventory of existing publicly owned facilities, with location and capacities?*

The Sheriff's CFP contains a complete list of relevant capital facilities. Vancouver identified existing CFP's as did Washougal, Ridgefield and Camas. Other jurisdictions have not reported any separate facilities from main city buildings used for multiple purposes.

6. *A forecast of future needs is provided that is consistent with the land use plan that the Board identified on January 14, 2004.*

The Sheriff's forecast of future needs is provided that is consistent with the land use plan that the Board identified on January 14, 2004.

The plan relates population growth figures to demand for additional capital facilities as well as additional staffing and related costs. The CFP also identifies the list of needed facilities to support the Comprehensive Plan for 6 and 20 year planning periods. The key facilities, however, are listed as being needed within the 6-year planning period based on existing population needs. A level of service of officers per 1000 of population is identified at the State and National level, with Clark County currently being below those average staffing levels.

Vancouver projects additional needs through 2008, but no projections are made beyond that date. Camas reports no additional building space will be needed in the first 6 years. Yacolt and Washougal report no additional needs through the planning period.

La Center indicated that no additional police facilities will be needed (but identifies the need for additional personnel for their police department).

The City of Ridgefield indicates about 0.9 Million dollars of facility expansion will be necessary by 2010 and an additional \$380,000 by 2023 to accommodate additional officers and support personnel which is expected to grow from 7 to 17 people.

Battle Ground has not reported, but did discuss their needs for the Sheriff's report. It is not likely that the Battle Ground Police Department will require additional capital facilities, as they have a new building.

7. *A listing is provided of proposed expansions to capital facilities or new capital facilities that are capable of providing for the needs identified in the forecast. This should be a "20-year listing" since the land use plan covers a 20-year period.*

The Sheriff's CFP contains a list of projects, period of time needed, capacities, cost and funding sources for the 20-year planning period. Vancouver also identifies similar information and costs, but only through 2008. Washougal and Yacolt report no additional needs through the planning period. Camas and Ridgefield report building expansions will be necessary beyond the year 2017 with Ridgefield indicating additional facilities will be necessary during the first 6 years. Other jurisdictions have not reported.

8. *A 6-year financial plan is developed for funding those expansions or new capital facilities that are expected to be needed within the first 6-years of the plan. That financial plan must be fully balanced. The identified needs must have known funding sources (even if those funding sources may require voter approval).*

The Sheriff's plan does outline the facilities needed in the first 6 years of the Comprehensive Plan. The listing of 6-year projects includes four projects as shown in the table at the top of the next page. However, the report does not indicate the funding for major projects during the first 6 years are reasonably secure.

Clark County Comprehensive Capital Facilities Plan, Summary Report

Clark County Sheriff's Proposed 6-Year Capital Program

Capital Facility	Description	Cost (millions, 2004 dollars)	Funding
Jail Expansion	500 bed maximum security facility with administrative offices, office for Property and Evidence and parking	\$80.0	Bonds, levy
Central Precinct Replacement	8,600 sq. ft. building, space for public meetings and parking. Joint project with Public Works	\$1.8	Bonds, road fund
Marine Patrol Facilities Replacement	1,300 sq. ft. boathouse and 720 sq. ft. boat storage garage	\$0.09	General fund
Jail/Records Management Replacement	Building remodel/expansion to house inmate and criminal records, related information.	\$2.0	Information Technology Reserve Funds
TOTAL		\$83.89	

The Sheriff's CFP responds to county-wide demands for regional services as well as local demands for police service in the unincorporated areas of the county. The major capital facilities, particularly the jail, are proposed to meet the 20 year demands of the comprehensive plan based on the assumptions that drive it, such as the 1.83% annual population growth rate assumption.

Vancouver's CFP responds only to the current urban growth boundary, not the geographic area added to the UGA under the Board of Commissioners January 14, 2004 proposal. It also goes only until 2008, not 2023, the 20 year planning period. A summary of the 6-year program is provided in the table on the following page.

Other jurisdictions that reported to the Sheriff's Department on this study, including Washougal, Camas, LaCenter, Yacolt, have reported 20 year plans for police services and appear to include those urban areas provided for in the January 14, 2004 proposed map. Vancouver assumptions also are based on assumptions adopted by the City which are somewhat different than those used by the County, specifically assumed housing density and redevelopment factors. Ridgefield reports the need for additional office type facilities during the planning period.

Other reporting jurisdictions indicate that levels of service for law enforcement can be maintained based on the CFP's as proposed. The most difficulties reported by several jurisdictions isn't the CFP's but paying for the additional manpower necessary to support the proposed growth.

Clark County Comprehensive Capital Facilities Plan, Summary Report

City of Vancouver 6-Year CFP for Police Facilities			
Year/Capital Facility	Description	Cost (millions, 2004 dollars)	Funding
2003 Evidence Facility	Precinct upgrades and remodels	\$2.2	General Fund
2004 Purchase east precinct land	For future precinct station	\$1.0	General Fund
2005 Build east precinct, buy west precinct land	Build east precinct, buy west precinct land	\$5.0	General fund
2006 Build west precinct	Build west precinct	\$6.0	General Fund
2007 Expand central precinct	Expand central precinct	\$1.5	General Fund
2008 Training Facility and indoor firing range	Training Facility and indoor firing range	\$2.5	General Fund
TOTAL		\$19.5	General Fund

Fire Protection

Summary

Fire protection is provided throughout the county in both urban and rural areas by a variety of cities and districts. The large number of providers has made summarizing the capital facilities plans challenging as many districts have not submitted plans for review. Most of the city fire departments have completed fully compliant capital facilities plans that demonstrate the ability to provide fire protection services to their service areas at their response time standard. That is not the case for fire districts, many of which have not yet submitted CFPs for review. 20-year capital facilities plans are not typically produced by small, rural fire districts. Though this does constitute a shortcoming of this analysis, it is not as critical a matter as others addressed for this capital facilities summary. Significant findings of this analysis include the \$300,000 shortcoming in funding for Fire District number 13 and the lack of any documentation from Fire District number 6. Given the urban expansion proposed within the latter district, the use of urban holding is necessary until there is some evidence of the availability of emergency services.

Fire Protection Service Areas

Fire protection is provided through both city fire departments and fire districts that cover both urban and rural unincorporated areas. For some urban areas, there is not a city fire department within the incorporated area and fire protection is provided by a fire district. Figure 7 illustrates the boundaries of the fire protection providers in Clark County.

It should be noted that some districts are entirely rural, even under the proposed expansions to the urban areas. As such, the capital facilities plans for those districts and the ability to maintain response times do not directly affect the urban boundary decision.

Source Documents

The following capital facilities documents were reviewed for this analysis:

1. City of Camas Capital Facilities Plan (Fire Protection, August 19, 2003, Final Draft)
2. City of Washougal Capital Facilities Plan (March 15, 2002, Amended CFP)

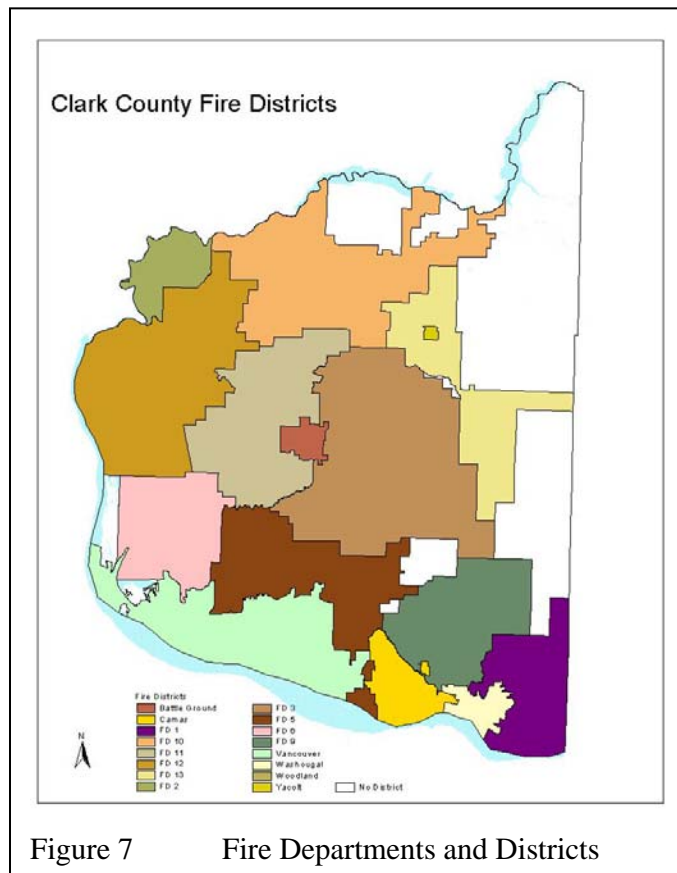


Figure 7 Fire Departments and Districts

3. City of Vancouver Capital Facilities Plan (Fire Protection, Date ?, Web site draft)
4. Town of Yacolt Capital Facilities Plan, (Capital Facilities, Fire Protection, March 15, 2004, Adopted)
5. Fire District #3 Capital Facilities Plan (March, 2004 draft)
6. Fire District #12 Capital Facilities Plan (February 2, 2004)
7. North Country Emergency Medical Service Capital Facilities Plan (June 3, 2004)
8. City of Battle Ground Fire Capital Facilities Plan (September, 1999 – Updated 2004)

CFP documents relating to fire protection from Fire Districts 1, 2, 5, 6, 9, and 10 were not received at the time of the review.

Analysis

The following questions respond to requirements needed to be consistent with GMA Capital Facilities Programs:

9. *Does the CFP contain an inventory of existing publicly owned facilities, with location and capacities?*

The City of Camas fire protection CFP contains an inventory of existing facilities noting their locations.

The City of Vancouver fire protection CFP includes the inventory of publicly owned facilities for both the city and adjacent Fire District 5 which has consolidated with the city fire department.

The City of Washougal fire protection CFP identifies the city's single fire station but does not list other existing capital investments necessary for fire protection.

The Town of Yacolt CFP document includes the existing fire station and fire equipment that is staffed through interlocal agreement with Fire District 13.

The City of Battle Ground CFP includes the inventory of the existing fire station that serves the City of Battle Ground through a service contract with Fire District 11.

Fire Districts 1 and 9 have not submitted a CFP.

Fire District 2 covers a portion of the northwest rural Clark County and the City of Woodland in Cowlitz County. A CFP has not been submitted by this district.

Fire District 3's CFP includes an inventory and identifies the location of existing facilities.

Fire District 6 has not submitted a CFP for review. District staff identified that a draft CFP would be 3 to 6 months in preparation and adoption of the draft would require another 3 months.

Fire District 10 has not responded to requests for a CFP.

Fire District 11 and 14 submitted a CFP for review on May 11, 2004.

Fire District 12's CFP includes an inventory with location of facilities. This district serves both the Ridgefield and La Center urban areas.

Fire District 13 submitted a CFP for review on June 3, 2004. There is an inventory of facilities and locations of those facilities in the CFP.

The North County EMS submitted a CFP on June 3, 2004 for review. There is an inventory of facilities and locations of those facilities.

- 10. A forecast of future needs is provided that is consistent with the land use plan that the Board identified on January 14, 2004.*

The City of Camas fire protection CFP contains a 20-year forecast of future needs.

The City of Vancouver/Fire District 5 fire protection CFP contains a 20-year forecast of projected needs.

The City of Washougal fire protection CFP projects future needs for both a 6-year and a 20-year horizon.

The Town of Yacolt CFP document only projects needs for the next 5 to 10 years. For fire protection.

The City of Battle Ground CFP contains a 20-year forecast of projected needs.

Fire Districts 1 and 9 have not submitted a CFP.

Fire District 2 covers a portion of the northwest rural Clark County and the City of Woodland in Cowlitz County. A CFP has not been submitted by this district.

Fire District 3's CFP only projects needs for the next 6 years (2010).

Fire District 6 has not submitted a CFP for review. District staff identified that a draft CFP would be 3 to 6 months in preparation and adoption of the draft would require another 3 months.

Fire District 10 has not responded to requests for a CFP.

Fire District 11 projected needs for the next 6 years.

Fire District 12's CFP includes a projection of needs for both a 6-year and a 20-year horizon.

Fire District 13 has projected needs for the next 6 years.

The North Country EMS has provided projected at least a 6-year forecast for calls and facilities needed by 2010.

- 11. A listing is provided of proposed expansions to capital facilities or new capital facilities that are capable of providing for the needs identified in the forecast. This should be a "20-year listing" since the land use plan covers a 20-year period.*

The City of Camas fire protection CFP contains a listing of capital projects to meet the forecast of future needs. The listing includes a new downtown fire station expected to be constructed in 2006 at a project cost of \$1,710,000; the total projected capital cost for fire projection is \$5,030,000.

The City of Vancouver/Fire District 5 fire protection CFP includes expected capital improvements needed to meet the forecast demand. These capital improvements

include replacing two volunteer stations with two new staffed fire stations, Station 87 (north) and 810 (east). Total cost-was not addressed?

The City of Washougal fire protection CFP identifies that two new fire stations will be needed at a cost of \$1,125,000. The total CFP for fire protection is projected to cost \$2,115,000.

The Town of Yacolt CFP document only projects needs for the next 5 to 10 years including the expansion of the existing fire station (cost not available) and replacement and additional fire protection vehicles (cost not available).

The City of Battle Ground CFP identifies those facilities needed for the next 20 years at the current level of service. Facilities include 1 ladder truck, 2 Class "A" Pumper Trucks and 3500 sq. ft. of office/living quarters.

Fire Districts 1 and 9 have not submitted a CFP.

Fire District 2 covers a portion of the northwest rural Clark County and the City of Woodland in Cowlitz County. A CFP has not been submitted by this district.

Fire District 3's CFP indicates those facilities needed for the next 10 years to maintain the district's response time. Facilities include 1 new station and remodeling of existing stations plus equipment for the new station and replacements. Costs are estimated at \$2,000,000.

Fire District 6 has not submitted a CFP for review. District staff identified that a draft CFP would be 3 to 6 months in preparation and adoption of the draft would require another 3 months.

Fire District 10 has not responded to requests for a CFP.

Fire District 11 identified that there are plans to turn over Station 11-3, the Battle Ground police and fire station to the fire district when the new police station is completed in 2005. They also identified the need for an addition/remodel of Station 11-2, with full living quarters and additional bay space. Along with that are the costs of an engine and new training facility. Total capital costs are projected to be \$3,040,000.

Fire District 12's CFP identifies the need for a expanded replacement to their main station and new ladder truck at a total cost of \$5,700,000. The district estimates that approximately 50% of the cost is attributable to growth within the district while the other 50% is related to replacement of the existing facility.

Fire District 13 has indicated a need for expansion of the Yacolt Fire Station and living quarters at the Sunset Falls/Dole Valley volunteer station and a new (used) fire truck at a combined cost of \$550,000.00. They have an existing reserve account of \$150,000 for capital improvements and the rest is unfunded. All tax district proceeds are identified as needed for operational expenses.

North Country EMS has provided a 6 –year listing of needed facilities. They have not provided a 20-year CFP.

12. *A 6-year financial plan is developed for funding those expansions or new capital facilities that are expected to be needed within the first 6-years of the plan. That financial plan must be fully balanced. The identified needs must have known funding sources (even if those funding sources may require voter approval).*

The City of Camas fire protection CFP contains a six year program of 1 new station and equipment project at a total cost \$3,280,000. These projects are funded using emergency response funds and bonds.

The City of Vancouver/Fire District 5 fire protection CFP does not appear to include a six-year program. The draft comprehensive plan discusses the recent cost experience and budgeted costs for 2004 for fire protection services. That discussion notes statewide challenges facing county fire districts as a result of property tax limitations but offers no solutions other than legislation enacted at a state level.

The City of Washougal fire protection CFP identifies that 1 new station project and equipment and land acquisition for a second station (to be built in year-10 to -20 scenario) will be needed at a cost of \$900,000 for the six-year period. These projects are funded with the city's fire impact fee.

The Town of Yacolt CFP document has a six year list; but that list does not reflect capital investments for fire protection..

The City of Battle Ground CFP identifies an impact fee to address the growth over the planning period identified in their comprehensive plan.

Fire Districts 1 and 9 have not submitted a CFP.

Fire District 2 covers a portion of the northwest rural Clark County and the City of Woodland in Cowlitz County. A CFP has not been submitted by this district.

Fire District 3's CFP has a ten-year program. Four projects and equipment purchase are proposed at a cost of \$1,250,000.

Fire District 6 has not submitted a CFP for review. District staff identified that a draft CFP would be 3 to 6 months in preparation and adoption of the draft would require another 3 months.

Fire District 10 has not responded to requests for a CFP.

Fire District 11 has a 6-year program that identifies funding from Bond Sales and an existing reserve fund. Total funds needed are \$3,040,000.

Fire District 12's CFP identifies the need for a new station and aerial ladder truck at a cost of \$5,715,940.

Fire District 13 has only provided a 6-year capital facilities plan and funding program. However, the funding program is not balanced and leaves a substantial deficit of \$400,000 for capital improvements. Please note that combined facilities with the Town of Yacolt and North Country EMS are identified.

North Country EMS has provided a 6-year funding program but it is not balanced. Identified capital improvements are shown as \$975,000 by 2010 with revenues of

Clark County Comprehensive Capital Facilities Plan, Summary Report

only \$521,666 from existing reserve funds. The district is within \$0.01 of their funding capacity of \$00.50 per \$1,000 of assessed valuation.

Transportation

Summary

Most of the transportation elements and transportation capital facilities plans reviewed meet the requirements of the state law (as noted in the Definitions section of this report). There are some plans that appear incomplete but there is an expectation that those will be completed – the major question is the timeline for that completion.

Of those plans reviewed, several communities have identified shortfalls in available transportation funding over the 20-year plan life. Other communities have identified that an aggressive approach to external funding sources, like grants, will be necessary to maintain their transportation desired level of service. At least one community has asked, through its plan document, for the county to invest in county facilities seen necessary for the support of that community's urban area. The latter part of this comprehensive planning process should prompt discussion between jurisdictions seeking a cooperative approach to meeting needs that exceed the ability of jurisdictions to fund them.

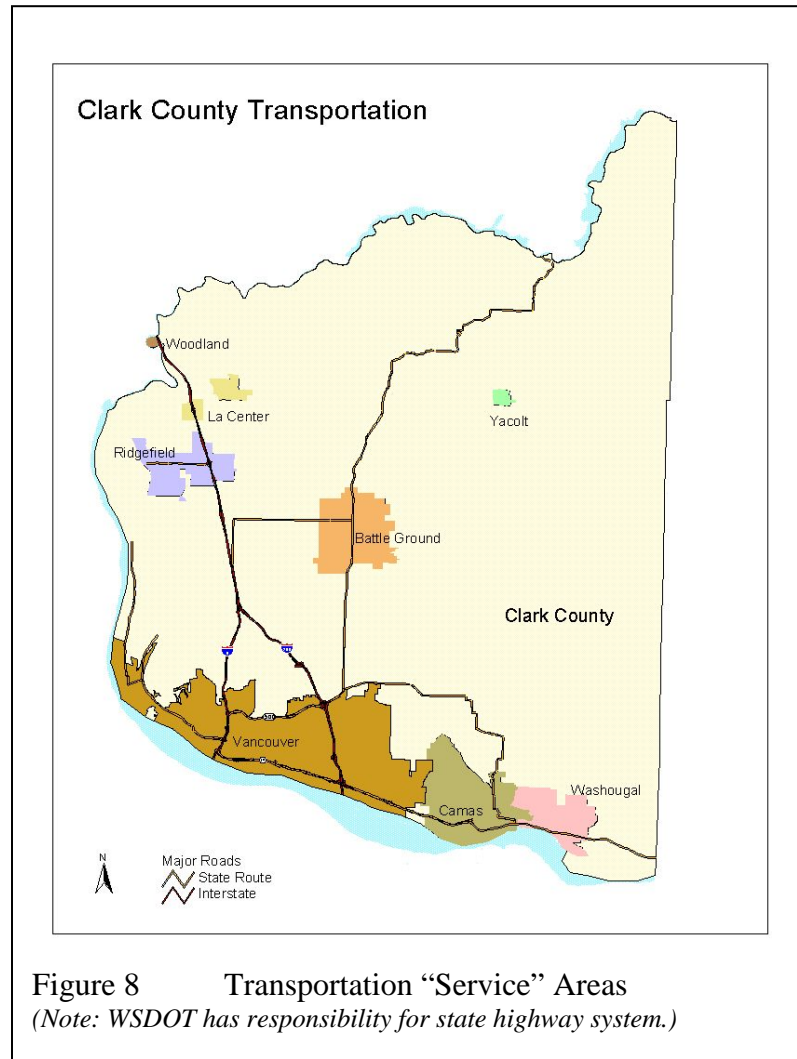
Transportation Service Areas

The responsibility for transportation capital improvements generally follows the land use jurisdictional responsibilities. The notable exception to that is the state highway system, for which the Washington State Department of Transportation has responsibility (see Figure 8).

Source Documents

The following capital facilities documents were reviewed for this analysis:

1. City of Camas, *Final Draft Comprehensive Plan*, December 2003 (Section VII Transportation Element, Section X, Capital Facilities Plan).



2. City of La Center, *Comprehensive Plan*, September 5, 2003 (Discussion Draft)
3. City of La Center, *Transportation Capital Facilities Plan*, April 7, 2004 (Draft)
4. City of Ridgefield, *Draft Transportation Capital Facilities Plan* (Volume II, Capital Facilities Plan, Pages 47-90).
5. City of Ridgefield, *Ridgefield Urban Area Comprehensive Plan 2003 Amendments*, August 2003 (Goal 9, Transportation).
6. City of Vancouver, *Draft Comprehensive Plan 2003-2023*, (Public Facilities and Services, Transportation).
7. City of Washougal, *Draft Update to Transportation Plan*, August 2003
8. Clark County, *Draft Comprehensive Plan 2003-2023*, (Chapter 5, Transportation Element).
9. Town of Yacolt, *Town of Yacolt Comprehensive Growth Management Plan Update*, February 2004 (Adopted, Sections IV Transportation and V Capital Facilities)

At the time of this review, neither the transportation element nor transportation capital facilities plan for the **City of Battle Ground** was completed in draft form for review.

Analysis

The analysis of the transportation element and associated transportation capital project lists differs from other capital facilities as it is structured to respond to the applicable state requirements (as noted in the Definitions section of this review document).

1. *Does the transportation element cite the land use assumptions used for the transportation demand estimation?*

All of the reviewed transportation elements contain references to the land use assumptions used to estimate transportation demand. It should be noted that not all of the jurisdictions use the regional transportation model maintained by RTC to estimate future transportation demand. In particular, both the **City of Washougal** and the **Town of Yacolt** used straight-line growth factors based on expected population growth to estimate future traffic volumes⁴. Both of these jurisdictions did not request urban area expansions.

2. *Does the transportation element contain an inventory of transportation facilities and services?*

Most of the transportation element and/or transportation capital facilities plans contain an inventory of existing transportation facilities within each jurisdiction. These inventories include both mapping and descriptions in text (sometimes either one or both).

The draft transportation plan update for the **City of Washougal** does not contain an inventory of transportation facilities. Given that the city did not ask for an urban area expansion, they may be relying upon the inventory of facilities from the existing transportation plan.

⁴ The application of a population or household-based growth factor to estimate future traffic volumes is appropriate when no change in the pattern of growth or the type of growth is expected. In communities where additional employment is expected, especially if that employment is located on mainly vacant lands, the new pattern of traffic will not be the same as the previous pattern and factoring existing volumes will not be particularly successful in planning the future transportation system.

3. *Does the transportation element contain local level of service standards?*

All of the transportation elements and/or transportation capital facilities plans contain level of service standards for local facilities. The following table summarizes the local level of service standards for area jurisdictions. The Growth Management Act, local policies, and the principle of adequate capital facilities planning dictate that evidence needs to be provided that a jurisdiction can afford the impacts of growth on their community especially when a jurisdiction is requesting a legislative action (boundary movement) that would generate greatly increased levels of growth.

Table 5 Local Level of Service Standards	
Jurisdictions	Level of Service Standard
City of Battle Ground	<i>Not available</i>
City of Camas (Policy TR-20)	LOS "D"
City of La Center (Policy 2.1.2)	LOS "C" for classified streets. Install traffic signal when LOS "D" is reached or intersection meets warrants.
City of Ridgefield	LOS "D" except unsignalized intersections where signal not meeting warrants or signal not desired then LOS "E"
City of Vancouver	A combined corridor and intersection approach. Lowest acceptable speed corridor is at 10 mph. No standard is applied in the City Center Zone.
City of Washougal	LOS "D" except unsignalized intersections where standard is "E"
Clark County	A corridor approach with intersections considered where corridors are not identified. The lowest acceptable speed is 13 mph and it occurs on several corridors including sections of Highway 99, Andresen Road, State Route 503, Ward Road, Fourth Plain, 162 nd Av and a portion of the Salmon Creek corridor.
Town of Yacolt	LOS "C" for arterial roadways, "B" for non-arterial roadways.

In every jurisdiction except for **Yacolt**, growth can not be fully accommodated with projected revenues. Therefore, the levels of service on corridors and at intersections will reflect this by decreasing. These LOS standards serve the dual purposes of quantifying the levels of congestion and delay as well as serving as a standard for concurrency testing of development proposals. The following sections will review the changes in LOS and the possible corridors in “failure.” Uniform testing is not done, thereby inhibiting the ability to do precise comparisons among jurisdictions. There are different definitions of LOS F, for instance, and two jurisdictions have abandoned this measurement in lieu of a numeric measure. “Failure” in this summary generally refers to level of service

Camas:

Currently only one intersection is in failure; 6th St at SR 14. In the horizon year (2023) 9 intersections will be in failure. Each of these is failing in the minor movement, i.e. the delay has exceeded the standard for the lesser movement across a larger corridor. In the example above, 6th St is the minor movement. LOS standards for major corridors and intersections are proposed to drop in 26 of 46 cases.

Clark County:

Clark County and **Vancouver** use numeric measures for their concurrency testing programs. The lowest tier for **Clark County** is 13 mph. This is not directly translatable into LOS F, as different travel speeds are considered acceptable based on the nature of the roadway. For example, 13 mph is *passing* on a heavily-signalized, two lane, central city corridor but not passing for a five lane arterial with access controls. There are currently 5 corridor segments with an LOS standard at 13mph. There will need to be 7 at this level to accommodate projected growth. Nine of 35 corridors will require lowering of their LOS standard.

Battle Ground:

Battle Ground has not finished their CFP for transportation.

La Center:

The transportation analysis of growth in **La Center** measured AM and PM peak traffic. For the sake of consistency with other jurisdictions, only the PM peak data will be discussed in this report. No intersections are currently or projected to be in failure. Standards will need to drop on 4 of 7 intersections.

Ridgefield:

In **Ridgefield** the LOS drops for 7 or 11 intersections. One intersection is currently in failure (SR 501 at I-5). In 2023 three corridors and 7 intersections are likely to be in failure.

Vancouver:

Vancouver measures LOS and tests concurrency similarly to **Clark County**. However, it is important to note that **Vancouver** uses specific numeric measures for each standard rather than the tiered approach of the **County**. This may result in the appearance of more widespread drops in LOS. For example, Mill Plain Blvd from I-5

to Andresen Road will drop from 19.71 to 19. This would not constitute a “drop” by County standards. Having said that, 19 of 21 corridors will have lowered LOS standards. Currently, only one segment is measured at or below 13 mph. In 2023 this will increase to 11 corridor segments at or below 13 mph.

Washington State:

Except for SR 502, at least one segment of every state highway will have a lowered level of service,. I-5 is currently in failure from the Columbia River bridge north to Mill Plain. The highway is projected to be in failure further north to 99th Street, and from 134th St to 219th St. I-205, which now has no failures, will be in failure from the bridge to SR 500. SR 500 will fail in two sections in the east. Hwy 503 is currently, and will remain in, failure from 4th Plain to 119th St. SR 14 will have no failures, neither will SR 501 except for the segment from I-5 to Franklin Street.

Washougal:

The **Washougal** documents show a table of LOS standards after mitigation improvements have been made. It is assumed that these mitigations are the same as those in their capital facilities list. LOS standards will drop on nine of their 23 corridors and intersections. The City now has one transportation failure, and will have one in the future (B St at 32nd St).

Yacolt:

Yacolt will need to change no standards. All of their corridors currently function, and will continue to function, with an LOS of A.

4. *Does the transportation element contain level of service standards for the state highways?*

Of the transportation elements reviewed, that have state facilities within the applicable jurisdiction, most note the mandated level of service for state facilities. Many of the elements do not cite the applicable standards but address it either through adoption of the Metropolitan Transportation Plan by reference or through mentioning the differing standards for highways of statewide significance (I-5, I-205 and SR-14) and state highways of regional significance (SR 500, 502, 503).

5. *Does the transportation element identify actions to address identified existing deficiencies in the transportation system?*

A small number of the transportation elements reviewed identify existing deficiencies in the transportation system. It is not clear whether this variation is because some of the jurisdictions do not have transportation facilities not meeting the applicable level of service standard or because existing conditions were not examined in the planning process.

The **City of Camas**, the **City of Ridgefield**, and the **Town of Yacolt** do not specifically identify existing deficiencies in the plan documents reviewed. However, LOS standards can be considered to reflect existing deficiencies and are summarized above.

The City of **La Center** notes that the existing intersection of NW La Center Road and E. 4th Street does not meet LOS standards for the minor movements from 4th Street. Their transportation capital facilities plan also noted that the intersection formed by the I-5 southbound ramps and NW La Center Road is not meeting LOS standards.

The **City of Washougal** notes that the minor crossing movements at the intersection of SR-14 and 32nd Street as not meeting the city's applicable LOS standard. The draft transportation plan update identifies that a planned interchange project on SR-14 will address this deficiency.

Clark County identifies several existing deficiencies including the Salmon Creek area at NE 134th Street and NE Andresen Road north of SR-500. The county commits to correct these deficiencies in the future.

6. *Does the transportation element contain a forecast of traffic conditions for at least ten years based on the land use plan? (Since the January 14, 2004 land use plan was a 20-year plan map, this requirement in Clark County is interpreted to be a 20-year transportation conditions forecast.)*

All of the reviewed transportation planning documents indicate projections of future traffic conditions but not all of those projections are based on the January 14, 2004 land use map. In particular, the **City of Vancouver** transportation element does refer to the balance of the comprehensive plan for the land use assumptions used in the transportation plan but that plan document was prepared prior to the January 14, 2004 direction regarding land use from the board. That apparent disconnect may not be significant given that the city's plan does not address expansion areas except for the Fisher Swale area.

The **City of Washougal** transportation plan update applies a growth factor to estimate future traffic volumes based on the average historical population growth rate. This approach may or may not reflect the adopted land use plan. In a community where the plan is expected to increase the jobs-to-housing ratio, a growth factor approach will not capture the changes in the patterns of travel that are expected to emerge. A similar issue exists with the transportation element for the **Town of Yacolt** but to a much lesser degree since the town expects less change that could potentially alter the pattern of trip making.

7. *Does the transportation element (or transportation capital facilities plan) contain a listing of state and local systems needs to meet forecasted demand?*

All, of the examined transportation planning documents, contain either a listing or map of the transportation system needs or a statement that there are no capacity-related needs (**Town of Yacolt**). The level of need varies between the communities and in some cases no needs on the state highway system are identified.

The **City of Camas** identifies \$69 Million of transportation projects in the 6 year period from 2004 to 2010. Their twenty year project list has a total of \$112 million worth of improvements.

The **City of La Center** identified \$3.1 Million of transportation projects in the 6 year period. The city's draft transportation capital facilities plan identifies \$5.0 Million in projects that the city expects the **County** to fund and \$5.3 Million of improvements to

the La Center Road / I-5 interchange expected to be funded jointly by the state and the county. Of the projects identified for the county to fund, two are identified as not being needed within the 20-year planning period (\$4.1 Million). The La Center, 20-year list has a total of \$31.1 million worth of improvements. The 20-year project list proposed by the **County** does not include the projects that **La Center** would like to have built. It is assumed that **La Center** had these improvements in the transportation modeling network. Therefore, the LOS standards proposed by the **City of La Center** may be inappropriately based on improvements that will possibly not be made. The same is true for La Center's assertion that the state will fund improvement to the interchange. Without these projects the interchange ramps and portions of Timmens Road will likely be in failure.

The **City of Ridgefield** draft transportation capital facilities plan identifies a total of 48 projects. Five of the 48 projects are identified as partially or fully outside of the urban growth area and one of the 48 that is identified as not being needed within the 20-year planning period. All of the projects are estimated to cost \$145.4 Million in total (inclusive of projects that are identified as being entirely a private responsibility).

The **City of Vancouver** comprehensive plan transportation element contains a tabulation of project costs for both the 2003-2008 period and the 2009-2023 period but neither the plan document nor the draft Transportation Plan provide a listing projects (so the number of projects cannot be determined from the reviewed material). The transportation plan contains maps of projects for the street system, signal system, the pedestrian system, the bicycle system, the transit system (showing HCT corridors) and the highway system (state routes). In the comprehensive plan, transportation needs in the 2003-2008 totals \$211.9 Million while the entire 20-year planning period transportation systems investment is estimated as \$275.1 Million. The City of Vancouver's total capital investments in transportation are \$188 million for the six year period, and 406 million for the 20 year.

The **City of Washougal** draft transportation plan update indicates that a total of 17 projects needed over the 20-years of the plan. Of those projects, 5 were added to the list with this plan update. Three projects on the list are tagged as not being capacity improvements (i.e., placed on the list for reasons other than a deficiency related to the future level of service). Project costs are not identified in the draft document.

Clark County identifies \$536.1 Million of needed roadway improvements over the 20 year planning period. It is recognized that this number represents the funding capacity for the county based on the Revenue Perspective. There are likely to be capacity needs beyond this finite amount of funding. Level-of-service adjustments will be made to bring the list of needs into balance with available funding. The County's 6 year project list includes a total of \$195 million.

As noted previously, the **Town of Yacolt** identifies that no capacity improvements are needed. The town did identify that many of its streets will require retrofit improvements to bring them to the applicable standards. Many of those projects will also address storm water management issues and the costs are not separated between

the two capital facilities (transportation and storm water). The total projected costs for the 30 identified retrofit projects are \$4.8 Million.

8. *Does the transportation element or transportation capital facilities plan contain a finance plan which has an analysis of the funding capacity for the 20-year needs, a multi-year program (which serves as the basis for the six year program of transportation improvements) and a discussion of how to address any shortfall of probable funding?*

This is an area where the degree to which this requirement is met varies widely between the documents reviewed. Some documents are fully compliant others lack addressing this requirement entirely.

The **City of Camas** documents reviewed contain a table of costs for the 20-year list of transportation improvements. Those tables identify both the total cost of a particular project and the source of expected revenue (general fund, loans, grants, partnership or developer contribution and impact fees). The plan appears to be financially balanced over the 20 year period (but no explicit statement to that effect was found). The plan document contains an explicit policy directed at addressing the potential of funding shortfall; Policy TR-40 commits the city to a public discussion about possible additional funding sources or a re-evaluation of the land use plan.

The **City of La Center** draft transportation capital facilities plan contains a section addressing the financial analysis requirement of the act. The financial analysis identifies that to meet the costs of the city's 20-year list of transportation needs, La Center would need to continue collecting local taxes and fees at or above the current levels, aggressively pursue grant funding, regularly update transportation impact fees including an annual inflation update and consider establishing a dedicated street and road fund. The financial analysis updates the city's traffic impact fee program to provide an estimated \$1.5M of revenue over the 20-years of the land use plan (a resulting impact fee of \$2,281 per peak hour trip). The table of transportation capital projects identifies those projects needed in the first 6 years of the plan. The draft also cites the requirement for language regarding reassessment of the land use plan if funding projections are not met but that actual language does not appear in the documents reviewed.

The **City of Ridgefield** draft transportation capital facilities plan contains a section regarding financial analysis. The analysis explicitly states that existing funding streams would not be sufficient to address the 20-year needs. The draft identifies that the city's traffic impact fee should be increased and it should be adjusted annually to account for inflation. The draft advises that existing revenue streams will need to continue and, if possible, be increased. The city also identifies that it will need to aggressively pursue grant opportunities, especially future state gasoline tax increases (future "nickel" packages). The draft does not contain the multi-year program analysis identified as a requirement. The comprehensive plan addresses handling future funding shortfalls in Goal 9.14 which identifies a process to reassess the capital facilities plan and the land use plan.

The **City of Vancouver** transportation plan contains an analysis of funding for the plan. The analysis identifies that current revenue sources are not sufficient to meet the

identified needs by some \$12 to \$14 Million annually over the life the plan. The city formed a financing task force to examine possible new revenue sources; that task force made a recommendation to the City Council to consider additional revenues from the existing water and sewer utilities to meet some of the additional revenue requirements. Long term, the city is looking for legislative authority to assess a “street utility fee” at a level that would provide meaningful, long-term, stable and dedicated transportation revenue (similar to that provided to water and sewer utilities). The comprehensive plan contains a summary table indicating the 6-year program costs and identifies those that have existing funding and those needing future funding (“pending”). The current budgeted 6-year program totals slightly over \$80 Million while the total 6-year requires close to \$212 Million of funding (a short term shortfall of \$132 Million). The Vancouver plan documents do not explicitly address the requirement for language dealing with how to reassess the plan if expected funding is not achieved. This may be due to the clear statements in the plan that additional dedicated transportation funding is necessary to support the plan; in a sense, the plan does not need a strategy for addressing funding failure because it already exists and the city is attempting to address it.

The **City of Washougal** draft transportation plan update contains no financial analysis (nor 6-year program, nor language addressing funding shortfall).

Clark County transportation element contains a section identified as financial analysis. This section addresses the ability of the county to finance the expected 20-year list of projects and notes that the county will balance expenditures with revenues (as identified in the Revenue Perspective report). This balancing has resulted in some adjustments to the corridor level of service used in the county’s concurrency program. The six-year program will be a combination of existing projects carried forward and new potential projects determined in a subsequent public process. Staff has also completed a 20-year list of projects. Staff has prepared language to address the requirement to reassess the plan if expected funding does not develop as expected – that language needs to be included in the plan text.

The **Town of Yacolt** plan document identifies a 6-year program of projects that fits within the town’s financial capacity. There are no projects identified for years 7 through 20 but given the lack of identified long range transportation deficiencies that may be acceptable. There is no language for addressing potential future funding deficits, which also may be acceptable given the lack of long range capacity needs; future funding shortfalls could be addressed by slowing the rate of project expenditure on retrofit/upgrade-to-standards projects.

9. *Does the transportation plan commit to intergovernmental coordination? Is there any explicit analysis of external impacts?*

Most of the plan documents examined contain policy statements recognizing the need for and committing to intergovernmental coordination. As widespread as those policy statement are, none of the plans appear to explicitly examine impacts on the transportation facilities of other jurisdictions.

The **City of Camas** plan document commits to intergovernmental coordination in the text of its transportation element and in Goal TR-4 of the transportation element. Of

all of the jurisdictions, Camas has the only example of formal recognition of external impacts – a series of payments from traffic impact fee funds to the City of Vancouver for the NE 192nd Avenue roadway improvement (which is located in the proposed Vancouver urban area but benefits urban development in both cities).

The **City of La Center** commits to intergovernmental coordination in comprehensive plan policy 2.1.1. While the transportation capital facilities plan draft identifies projects external to the city that are needed to maintain an adequate level-of-service, there is no further analysis about sharing responsibilities for those projects. In our review, it is unknown whether any assessment of the “cause” for these improvements was made (e.g., for the interchange improvements, how much traffic is from the La Center UGA versus rural areas of the county).

The **City of Ridgefield** draft comprehensive plan commits to regional coordination in Goal 9.1 of the plan. The capital project list identifies roadways that need improvement but are partially or wholly outside of the UGA and, in some cases, identifies a public share for the funding of that improvement. The draft document does not identify which public agency should be responsible for the public share.

The **City of Vancouver** comprehensive plan contains a specific policy addressing intergovernmental coordination (PFS-14). External impacts are recognized indirectly through the identification of roadway improvements external to the city limits⁵. Some of these improvements are identified on the county’s long range plan; others are not. Where those improvements expected by the city are not placed on the county’s plan, those improvements are a possible source of regional inconsistency. There is no discussion of how these improvements are funded.

The **City of Washougal** draft update to the transportation plan does not contain a discussion or policy addressing regional coordination.

The **Clark County** transportation element of the comprehensive plan through county-wide planning policy commits to intergovernmental cooperation and coordination through the Southwest Washington Regional Transportation Council (RTC) as the designated Metropolitan Planning Organization and Regional Transportation Planning Organization. The county’s transportation planning efforts to date have not embraced that cooperation and coordination at an analysis level – one approach to doing that in this plan update would be to recognize where land use decisions in the county’s jurisdiction place greater than expected demands on roadways within other jurisdictions.

The **Town of Yacolt** includes the county-wide planning policies regarding regional coordination and cooperation and then mirrors that policy direction in its own transportation element (Policy 4-4). Given the lack of internal capacity deficiencies identified in the plan by the horizon year, it is understandable that no external analysis of possible contributions to capacity deficiencies was performed.

⁵ The map from the draft comprehensive plan and the map from the draft Vancouver Transportation System Plan are inconsistent when compared. For example, the draft Vancouver TSP shows a north-south facility north of the NE 39th Street on the NE 172nd Avenue alignment from NE 39th Street to NE 78th Street; that facility improvement external to the city limits is not shown on the comparable map in the draft comprehensive plan.

10. Does the transportation element or transportation capital facilities plan contain transportation demand management strategies?

Most of the reviewed plans consider or make a commitment to managing transportation demand as part of making their land use and transportation visions consistent.

The **City of Camas** comprehensive plan has two policies related to transportation demand management. Policy TR-22 commits to reviewing the location of land uses so that land uses are arranged to facilitate multi-purpose trips or trip-chaining. By combining trip purposes the total number of trips in the system can be reduced (versus unchained trip making behavior). Policy TR-22 explicitly commits to implementing trip reduction strategies.

The **City of La Center** comprehensive plan contains Policy 2.1.7 which commits the city to encouraging transit (both public and private). Car pooling is considered by transportation planners to be a private form of transit.

The **City of Ridgefield** comprehensive plan contains Goal 9.1 (d) which commits the city to working cooperatively with Clark County and other jurisdictions to establish traffic demand reduction programs. The plan also includes Goal 9.12 which speaks to land use plan changes and other planning activities in support of transit in order to reduce vehicle trips.

The **City of Vancouver** draft comprehensive plan contains policy PFS-4 which notes the inclusion of support programs such as transportation demand management in providing an integrated and connected transportation system. Later in the text of the public facilities and services element, the draft comprehensive plan notes that demand management efforts are an important non-capital investment in the transportation system.

The **City of Washougal** draft update to the transportation plan does not contain a discussion of transportation demand management. Perhaps that discussion is left to any transportation element contained within the comprehensive plan (which was not reviewed in preparation of this document).

Clark County addresses transportation demand management in a section of the transportation element noting the commute trip reduction program and the ability to influence transportation demand through parking policy. Plan policy 5.3.4 commits the county to supporting and promoting a transportation demand management program.

The **Town of Yacolt** comprehensive plan contains Policy 4-6 which speaks to the optimal use of roads to minimize new road construction. While not an explicit statement committing to transportation demand management, the basic tenet of transportation demand management is the optimal use of limited roadway capacity.

Conclusions

Most jurisdictions have met or appear to be able to meet (with additional information disclosure) the requirements of the Growth Management Act for capital facilities and transportation planning. At this time, the lack of draft material from the **City of Battle Ground** impairs the ability to make this a comprehensive review. Capital facilities planning is also hindered by other informational deficiencies, which have been described in this report.

Despite that lack of information, the following conclusions can be made:

- ◆ **WATER** - Many of the jurisdictions and the service districts have identified the need for additional water rights in order to obtain an adequate water supply. However, many jurisdictions will be increasingly relying on CPU water provision which will access new reserves through the Vancouver Lake lowlands. Some jurisdictions only need additional water resources from CPU during peak times, or for major industrial users. Others will need the inter-tie to accommodate projected residential growth.
- ◆ **FIRE** – The demands of this exercise are higher than expected for many small fire district staffs. Fire district number 6 which serves much of Felida and Hazel Dell, and is responsible for areas which are proposed for urban expansion, has not provided any evidence of their ability to serve population and job growth.
- ◆ **SEWER** – Sewer capacity may be an issue in the short term for areas served by the Salmon Creek Wastewater Management System. While there is a draft plan to remedy capacity limitations, the time required for permitting, design and construction may result in a temporary connection moratorium unless measures are taken to monitor or limit growth within the service area (which includes the **City of Battle Ground** and most of Hazel Dell Sewer District). Substantial rate increases are likely to be needed to retire bonds for this expansion project.

Given its limited rate base, the City of Ridgefield is likely to face significant challenges in financing the amount of collection system improvements required to serve the hilly terrain within its current UGA. Greater participation by developers or formation of an LID may provide a solution. Treatment plant expansions could also be delayed until an outfall to the Columbia River is assured. The financing element of the sewer CFP for the **City of Battle Ground** is not currently available.

- ◆ **PARKS** – No significant shortfalls in funding are identified. However, districts rely partly on bond measures to help fund expected facility needs and if a bond measure fails, the level of service for parks and recreation will drop. For parks, capital facility expenditures are inextricably linked to operational costs. If the facilities can not be maintained, they are not developed. It should be noted that the unincorporated urban area of the Vancouver Urban Area is under-served by neighborhood parks. This matter should be considered as the land use map which was the subject of this analysis expands the area that is currently underserved. There are discussions underway of mitigating these funding deficiencies with the formation of a Metropolitan Parks District. Its formation is subject to voter approval.

◆ **STORM WATER** – Stormwater capital facilities are an emerging area of concern with a level of service which is in a state of flux. The application of that level of service standard (both in terms of quantity and quality) to already built urban areas is a major challenge for most jurisdictions but particularly challenges **Clark County** (which does not have water or sewer utilities that can help fund storm water retrofit capital improvements). New development, and significant redevelopment projects are required to manage run-off. Yet, there is an unfunded need to manage existing levels of run-off from previous urban development.

◆ **SCHOOLS** - Schools are a capital facility that is in the forefront of the comprehensive plan discussions. It appears at this time that all the school districts with the exception of **Battle Ground** can accommodate expected new student growth generated from the Preferred Plan in the next 6-years either by their existing adopted 2003-2009 CFP or by an adjustment to their 2005/06 CFP. All districts rely on bond measures to help fund expected facility needs and if a bond measure fails the addition of portables and/or changing service standards would need to be considered. Alternately, land use allocations could be revised so that population growth would occur within school districts with greater funding capacity and greater success with bond measures. The Battle Ground School District has suggested that applying urban holding zoning to the expansion areas would temper the impact of development of those areas on its district.

◆ **POLICE** – Some jurisdictions foresaw no new capital facility needs for law enforcement. Others had needs, but asserted that these could be accommodated by projected general funds and grants. The significant shortfall exists for the County. The Sheriff's office identified the need for an \$80 million, 500 bed maximum security facility with associated offices. The only funding identified to pay for this expansion is a levy bond. This is a need in the 6-year period.

◆ **TRANSPORTATION** - Many communities identify long-term funding shortfalls in addressing transportation demands expected from the planned land use. Some communities openly acknowledge the expected funding shortfall while others look to an aggressive pursuit of external funding sources to solve the long term funding needs for transportation capital facilities. In particular, Vancouver has identified an existing shortfall in revenue to meet transportation needs which can only be made worse by additional traffic from expansion areas. Our review leads to the conclusion that current limitations on public funding for transportation preclude meeting the expected transportation demands from this land use plan. Every jurisdiction, except for **Yacolt**, shows congestion worsening and standards being lowered. Additionally, the Interstate and state routes will experience significant increases in peak-hour failures. These findings leave only level of service adjustments or reconsideration of the land use plan as available options to address this revenue shortfall.

Urban development and urban growth can be considered to be two different phenomena. Proper urban development includes the development of the resources that constitute the easily understandable measures of *livability*. The livability of a community is evidenced in the number and quality of neighborhood and regional parks, transportation services

(including transit and pedestrian amenities), schools, etc. It is possible for an urban area to develop during a period of minimal growth. Likewise, an urban area may grow without properly developing.

A capital facilities analysis provides an indicator of the future quality of life of a growing community. This particular capital facilities assessment has studied the effects of both the previous expected levels of growth and the growth which is stimulated by the provision of 9,000 acres of additional urban land. This report provides findings regarding future public needs for which funding *methods* are established but funding *levels* are uncertain. For example, the Battle Ground School Districts is projected to need at least 15 new school buildings which will need to be paid for by voter approved bond revenues. This report also provides findings for facilities, like transportation, where funding is projected to continue at current levels; but its ability to mitigate the impacts of growth will decrease. The result is more intersections and more road segments with failing levels of service.

Falling levels of service and the need for additional taxing authority are irrefutable effects of the proposed growth rate and subsequent land use map. These negative effects are lessened if the level of growth were to be reduced. Staff recommends actively phasing development, especially in areas identified to have capital facilities issues, through use of urban holding zoning overlays and development of interlocal agreements with service providers.

Citations

RCW 36.070A.070

Comprehensive plans -- Mandatory elements.

The comprehensive plan of a county or city that is required or chooses to plan under RCW [36.70A.040](#) shall consist of a map or maps, and descriptive text covering objectives, principles, and standards used to develop the comprehensive plan. The plan shall be an internally consistent document and all elements shall be consistent with the future land use map. A comprehensive plan shall be adopted and amended with public participation as provided in RCW [36.70A.140](#).

Each comprehensive plan shall include a plan, scheme, or design for each of the following: ...

(3) A capital facilities plan element consisting of: (a) An inventory of existing capital facilities owned by public entities, showing the locations and capacities of the capital facilities; (b) a forecast of the future needs for such capital facilities; (c) the proposed locations and capacities of expanded or new capital facilities; **(d) at least a six-year plan that will finance such capital facilities within projected funding capacities and clearly identifies sources of public money for such purposes;** and (e) a requirement to reassess the land use element if probable funding falls short of meeting existing needs and to ensure that the land use element, capital facilities plan element, and financing plan within the capital facilities plan element are coordinated and consistent. Park and recreation facilities shall be included in the capital facilities plan element.

(Emphasis is ours)

RCW 36.070A.070 (6)(a)(iv)

(6) A transportation element that implements, and is consistent with, the land use element.

(a) The transportation element shall include the following subelements: ...

(iv) Finance, including:

(A) An analysis of funding capability to judge needs against probable funding resources;

(B) A multiyear financing plan based on the needs identified in the comprehensive plan, the appropriate parts of which shall serve as the basis for the six-year street, road, or transit program required by RCW [35.77.010](#) for cities, RCW [36.81.121](#) for counties, and RCW [35.58.2795](#) for public transportation systems. The multiyear financing plan should be coordinated with the six-year improvement program developed by the department of transportation as required by RCW [47.05.030](#);

(C) If probable funding falls short of meeting identified needs, a discussion of how additional funding will be raised, or how land use assumptions will be reassessed to ensure that level of service standards will be met;

(Emphasis is ours)